TOSHIBA

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SERVICE MANUAL

LCD Color Television

37HLX95

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⚠ SERVICE SAFETY PRECAUTIONS

- The caution items shown here describe major safety issues and should always be observed.
- The meanings of the various indications are as follows.

⚠ **WARNING**	Indicates a hypothetical situation in which service personnel and nearby third parties, or even end users due to a product defect after the service operation is completed, could possibly be in danger of injury or even death in the event of operational error.
⚠ **CAUTION**	Indicates a hypothetical situation in which service personnel and nearby third parties, or even end users after the service operation is completed, could possibly be in danger of injury, or where there could be physical damage in the event of operational error.

* Physical damage means major damage to a home, furnishings and other possessions.

Examples of marks

SHOCK HAZARD	The △ indicates caution (including danger and warning). The actual meaning of this caution is indicated inside the △ or nearby illustrations or text. The example shown to the left indicates the danger of "electrical shock".
PROHIBIT DISASSEMBLING	The ⃠ indicates a forbidden action. The actual meaning of this caution is indicated inside the ⃠ or nearby illustrations or text. The example shown to the left indicates that disassembly is forbidden.
UNPULUG	The ● indicates a forced action (an action that must be performed). The actual meaning of this forced action is indicated by ● or nearby illustrations or text. The example shown to the left indicates that the power plug must be disconnected.

	⚠ WARNING
KEEP CHILDREN AWAY	• Always advise users to keep children away. There is danger of injury to children from tools, disassembled products, etc.
UNPULUG	• Always disconnect the power plug before starting work whenever power is not required. Failure to disconnect the power plug before starting work can result in electrical shock.
SHOCK HAZARD	• Depending on the model, use an insulation transformer or wear gloves when servicing with the power on, and disconnect the power plug to avoid electrical shock when replacing parts. In some cases, alternating current is also impressed in the chassis, so electrical shock is possible if the chassis is contacted with the power on.
USE SPECIFIED PARTS	• Always use the replacement parts specified for the particular model when making repairs. The parts used in products have the necessary safety characteristics such as inflammability, voltage resistance, etc.; therefore, use only replacement parts that have these same characteristics. Use only the specified parts when the ⚠ mark is included in a circuit diagram or parts list.
CAUTION FOR WIRING	• Parts mounting and routing of the wiring should be the same as that used originally. For safety purposes, insulating materials such as tubing or tape is sometimes used and printed circuit boards are sometimes mounted floating. Also make sure that wiring is routed and clamped to avoid parts that generate heat and which use high voltage. Always follow the original scheme.
CAUTION FOR ASSEMBLING / WIRING	• After a repair has been completed, reassemble all disassembled parts, and route and reconnect the wiring, in accordance with the original scheme. Do not allow internal wiring to be pinched by cabinets, panels, etc. Any error in reassembly or wiring can result in electrical leakage, flame, etc., and may be hazardous.
CHECK INSULATION RESISTANCE	• After completing the work, disconnect the power plug from the outlet, remove the antenna, turn on the power switch. Then, use a 500V insulation resistance meter to check the insulation resistance of the antenna terminal, other metallic parts and between the prongs of the power plug to make sure that the insulation resistance is 1M Ω or more. The set will require inspection and repair if the insulation resistance is below this value.
PROHIBIT REMODELING	• Never remodel the product in any way. Remodeling can result in improper operation, malfunction, or electrical leakage and flame, which may be hazardous

HANDLING THE LCD MODULE

Safety Precautions

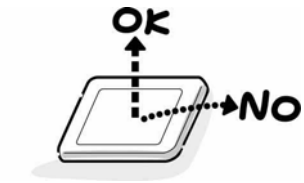
In the event that the screen is damaged or the liquid crystal (fluid) leaks, do not breathe in or drink this fluid. Also, never touch this fluid.

Such actions could cause toxicity or skin irritation. If this fluid should enter the mouth, rinse the mouth thoroughly with water. If the fluid should contact the skin or clothing, wipe off with alcohol, etc., and rinse thoroughly with water. If the fluid should enter the eyes, immediately rinse the eyes thoroughly with running water.

Precautions for Handling the LCD Module

The LCD module can easily be damaged during disassembly or reassembly; therefore, always observe the following precautions when handling the module.

1. When attaching the LCD module to the LCD cover, position it appropriately and fasten at the position where the display can be viewed most conveniently.



2. Carefully align the holes at all four corners of the LCD module with the corresponding holes in the LCD cover and fasten with screws. Do not strongly push on the module because any impact can adversely affect the performance. Also use caution when handling the polarized screen because it can easily be damaged.

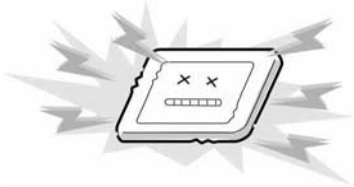
CAUTION	The metal edges of the LCD module are sharp, so use caution to avoid injury.

3. If the panel surface becomes soiled, wipe with cotton or a soft cloth. If this does not remove the soiling, breathe on the surface and then wipe again.
   If the panel surface is extremely solied, use a CRT cleaner as a cleaner. Wipe off the panel surface by drop the cleaner on the cloth. Do not drop the cleaner on the panel. Pay attention not to scratch the panel surface.

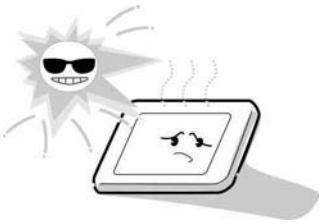
4. Leaving water or other fluids on the panel screen for an extended period of time can result in discoloration or stripes. Immediately remove any type of fluid from the screen.

5. Glass is used in the panel, so do not drop or strike with hard objects. Such actions can damage the panel.

6. CMOS-LSI circuitry is used in the LCD module, so avoid damage due to static electricity. When handling the module, use a wrist ground or anchor ground.

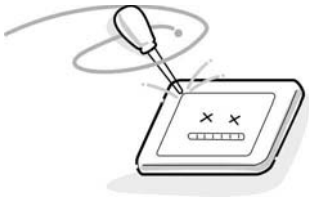


7. Do not expose the LCD module to direct sunlight or strong ultraviolet rays for an extended period of time.



8. Do not store the LCD module below the temperature conditions described in the specifications. Failure to do so could result in freezing of the liquid crystal due to cold air or loss of resilience or other damage.

9. Do not disassemble the LCD module. Such actions could result in improper operation.



10. When transporting the LCD module, do not use packing containing epoxy resin (amine) or silicon resin (alcohol or oxim). The gas generated by these materials can cause loss of polarity.

Safety Precautions for Laser Beam (DVD Player)

Do not look into the opening of the disc slot or ventilation opening of the product to see the source of the laser beam. It may cause sight damage.

SERVICE MODE

1. ENTERING SERVICE MODE

1) Press MUTE button twice on Remote Control.

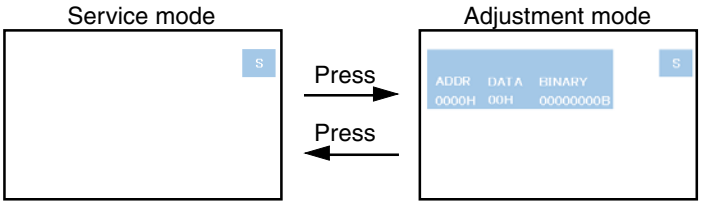
2) Press MUTE button again and keep pressing.

3) While pressing the MUTE button, press MENU button on TV set.

(Service mode display)

2. DISPLAYING THE ADJUSTMENT MENU

1) Press MENU button on Remote Control.



3. KEY FUNCTION IN THE SERVICE MODE

The following key entry during display of adjustment menu provides special functions.

Test signal selection :	TV/VIDEO button (on Remote)
Selection of the adjustment items :	Channel ▲ / ▼(on TV or Remote)
Change of the data value :	Volume ◀ / ▶ (on TV) or ▲ / ▼ (on Remote)
Adjustment menu mode ON/OFF :	MENU button (on Remote)
Initialization of the memory :	CALL + Channel button on TV (▲)
Reset the count of operating protect circuit to “00” :	CALL + Channel button on TV (▼)
“RCUT” selection :	1 button
“GCUT” selection :	2 button
“BCUT” selection :	3 button
“CNTX” selection :	4 button
“COLC” selection :	5 button ------Color thickness correction
“UVTT” selection :	6 button
Automatic A/D Adjustment(PC, Component) :	7 button
Self diagnostic display ON/OFF :	9 button

note: Displayed differently as shown below, depending on the setting of the receiving color system.
COLP (PAL)
COLC (NTSC)
COLS (SECAM)

CAUTION : Never try to perform initialization unless you have changed the memory IC.

4. SELECTING THE ADJUSTING ITEMS

1) Every pressing of CHANNEL ▲ button in the service mode changes the adjustment items in the order of table-2. (▼ button for reverse order)

5. ADJUSTING THE DATA

1) Pressing of VOLUME ◀ / ▶ , ▲ / ▼ button will change the value of data in the range from 00H to FFH. The variable range depends on the adjusting item.

6. EXIT FROM SERVICE MODE

1) Pressing POWER button to turn off the TV once.

■ **INITIALIZATION OF MEMORY DATA**

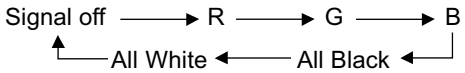
After replacing EEPROM IC, the following initialization is required.

1. Enter the service mode, then select any register item.
2. Press and hold the CALL button on the Remote, then press the CHANNEL ▲ button on the TV. The initialization of EEPROM IC has been completed.
3. Check the picture carefully. If necessary, adjust any adjustment item above. Perform “Auto tune” on the owner’s manual.

CAUTION: Never attempt to initialize the data unless EEPROM IC has been replaced.

7. TEST SIGNAL SELECTION

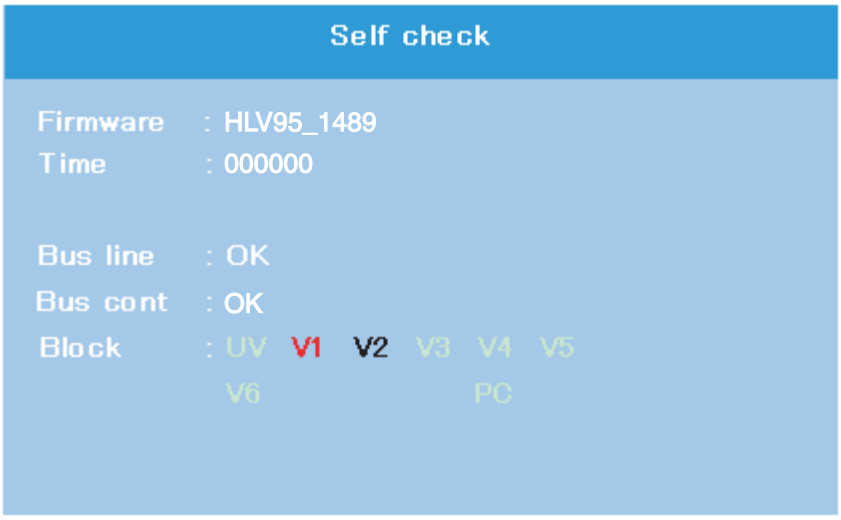
1) Every pressing of TV/VIDEO button on the Remote Control changes the built-in test patterns on screen as described below in SERVICE MODE.



Signals	Picture
• Red raster • Green raster • Blue raster • All Black • All White	

8. SELF DIAGNOSTIC FUNCTION

1) Press “9” button on Remote Control during display of adjustment menu in the service mode.
   The diagnosis will begin to check if interface among IC’s is executed properly.
2) During diagnosis, the following displays are shown.



① Firmware :
Version information of microprocessor
In case of file name : HLV95 and Version : 1489 indicates[HLV95_1489].

② Time : Total hour of turn the TV on. (Unit : H)

③ Bus line : --"OK" is normal
"SCL-GND"(Red indication) : SCL-GND short circuit
"SDA-GND"(Red indication) : SDA-GND short circuit
"SCL-SDA"(Red indication) : SCL-SDA short circuit

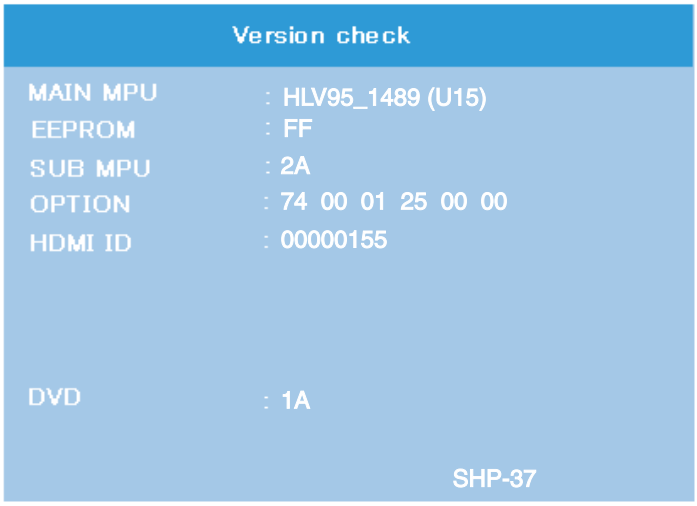
④ Bus cont : --- "OK" is normal.
NG is abnormal(Red indication).
When type name of semiconductor indicates.

⑤ Block

UV : TV reception mode
V1 : VIDEO 1 input mode
V2 : VIDEO 2 input mode
V3 : ColorStream HD1
V4 : ColorStream HD2
V5 : Buit-in DVD
V6 : HDMI IN
PC : Personal Computer (PC)

9. VERSION CHECK MODE

1) Press “9” button twice on Remote Control during display of adjustment menu in the service mode. The version of main MPU will begin to check.
2) During Version Check, the following displays are shown.



① MAIN MPU :
Version information of microprocessor
In case of file name : HLV95, Version 1489 for Code Program Version and (U15) for OSD Version indicates [HLV95_1489(U15)]

② EEPROM :
Version information of EEPROM : Display 1 byte data.

③ SUB MPU :
Version information of SUB MPU : Display 1 byte data.

④ OPTION :
Option information : Display six numbers of 1 byte data.

⑤ HDMI ID :
HDMI ID information : Display 4 byte data.

⑥ DVD :
DVD information : Display 1 byte data.

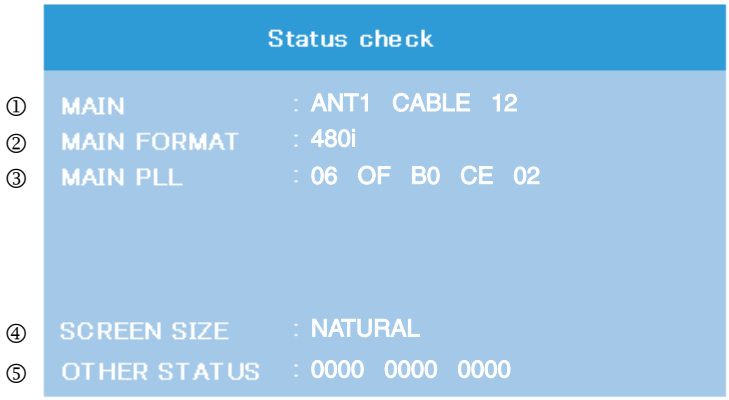
⑦ LCD Panel Vender information display
The following Panel Vender and screen size are displayed.

Panel Vender	Screen Size(Inch)
CMO	-27
SHP	-32
	-37

Example : SHP-37 indicates that vender is SHP and Screen Size is 37 inch.

10. STATUS CHECK MODE

1) Press “9” button thrice on Remote Control during display of adjustment menu in the service mode. The status of this model will begin to check.
2) During Status Check, the following displays are shown.


Status check
① MAIN : ANT1 CABLE 12
② MAIN FORMAT : 480i
③ MAIN PLL : 06 OF B0 CE 02
④ SCREEN SIZE : NATURAL
⑤ OTHER STATUS : 0000 0000 0000

① MAIN :
Main source information :
Display RF position number (0 - 99) on the main screen, or Input Source (ANT1/2/HDMI etc.)

② MAIN FORMAT :
Display Video and PC format information

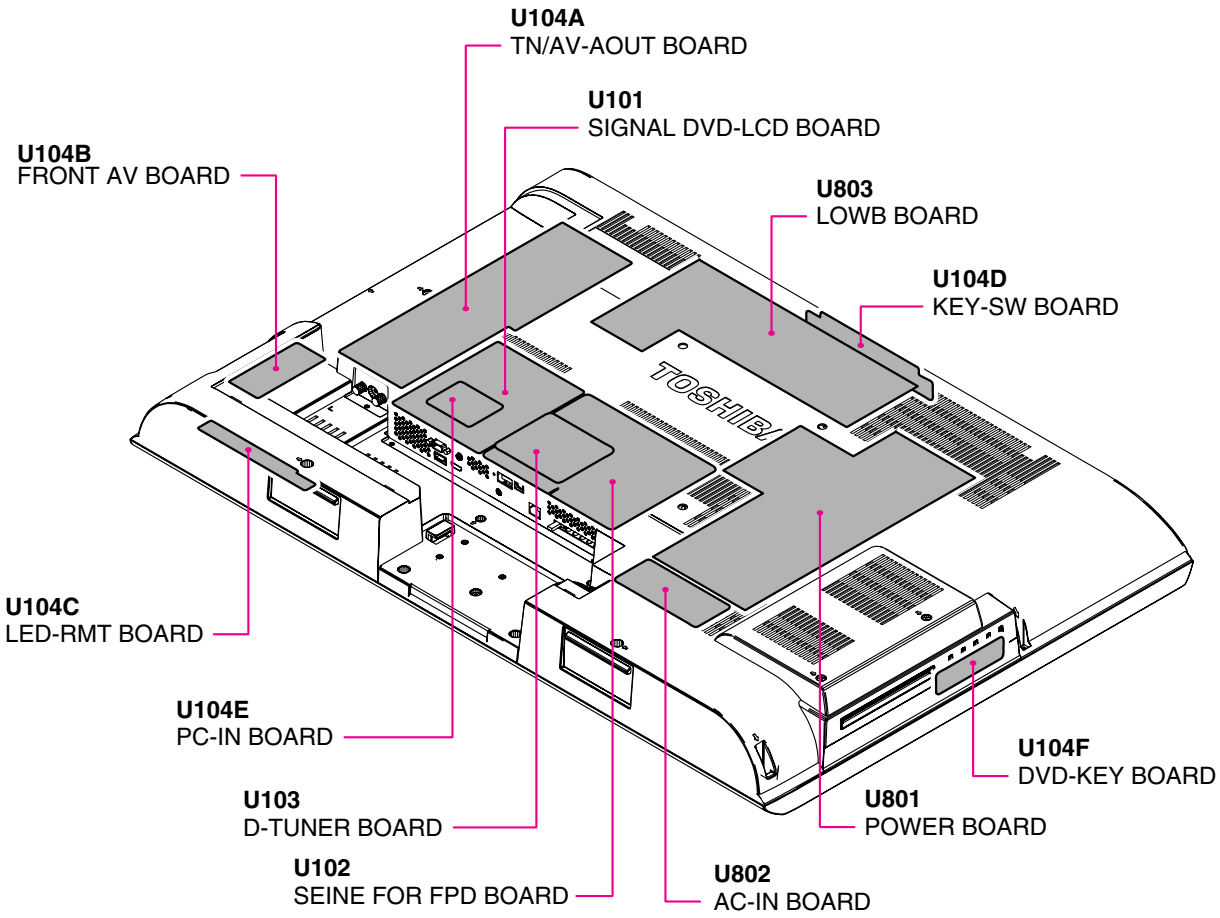
③ MAIN PLL :
Main PLL information : Display five numbers of 2 byte data.

④ SCREEN SIZE :
Display the screen size as follows.

Theater Wide 1
Theater Wide 2
Theater Wide 3
FULL
NATURAL

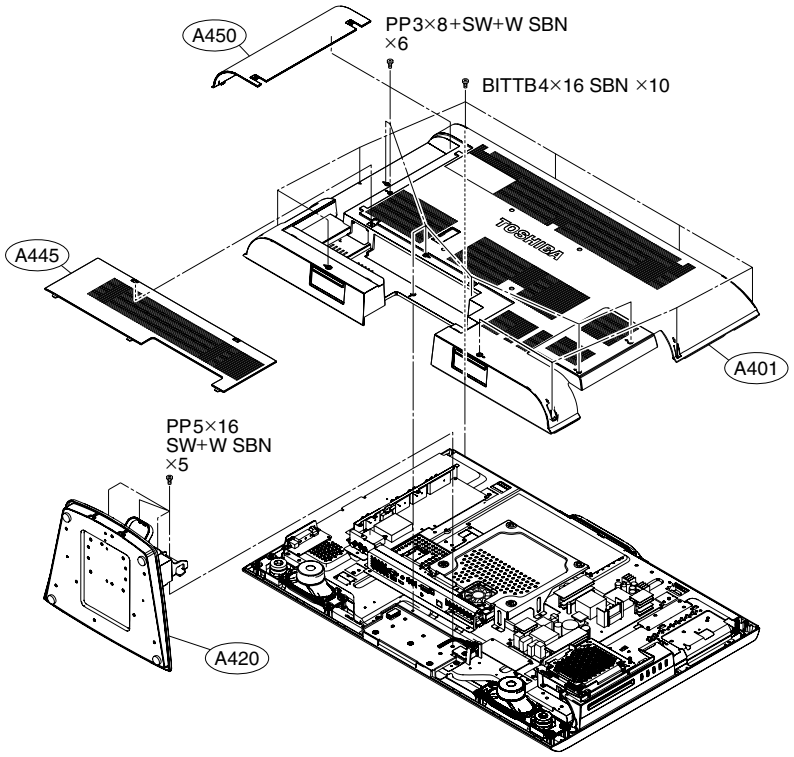
⑤ OTHER STATUS :
Other status information : Display three numbers of 2 byte data.

LAYOUT OF MAJOR BOARDS

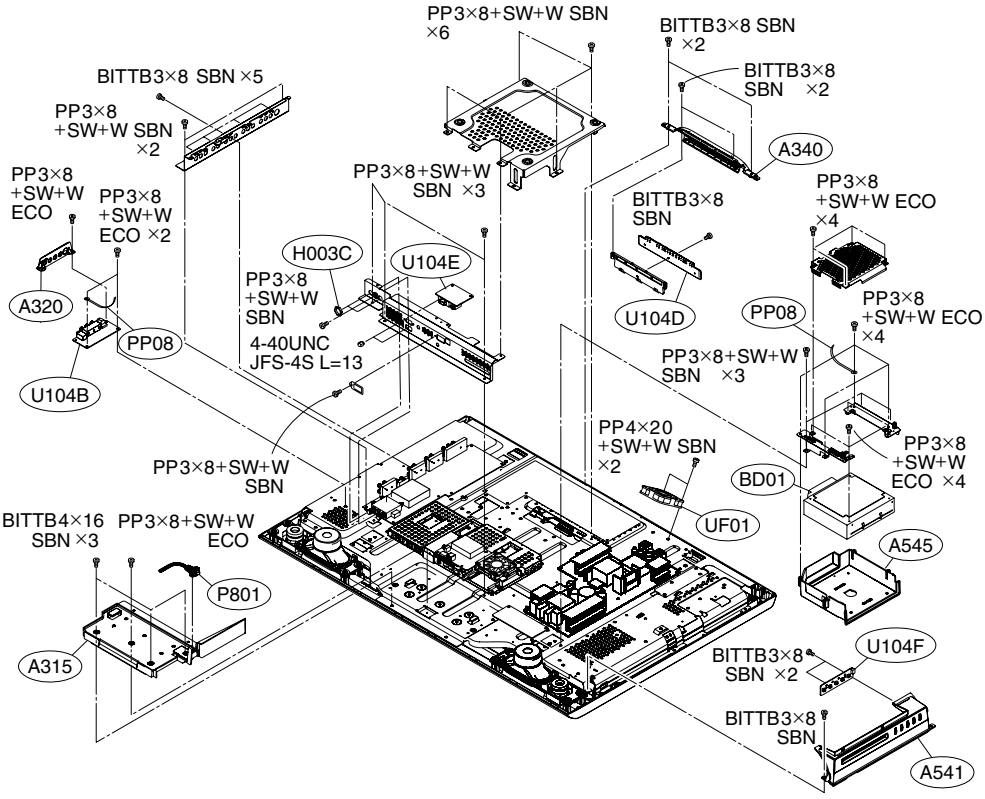


MECHANICAL DISASSEMBLY

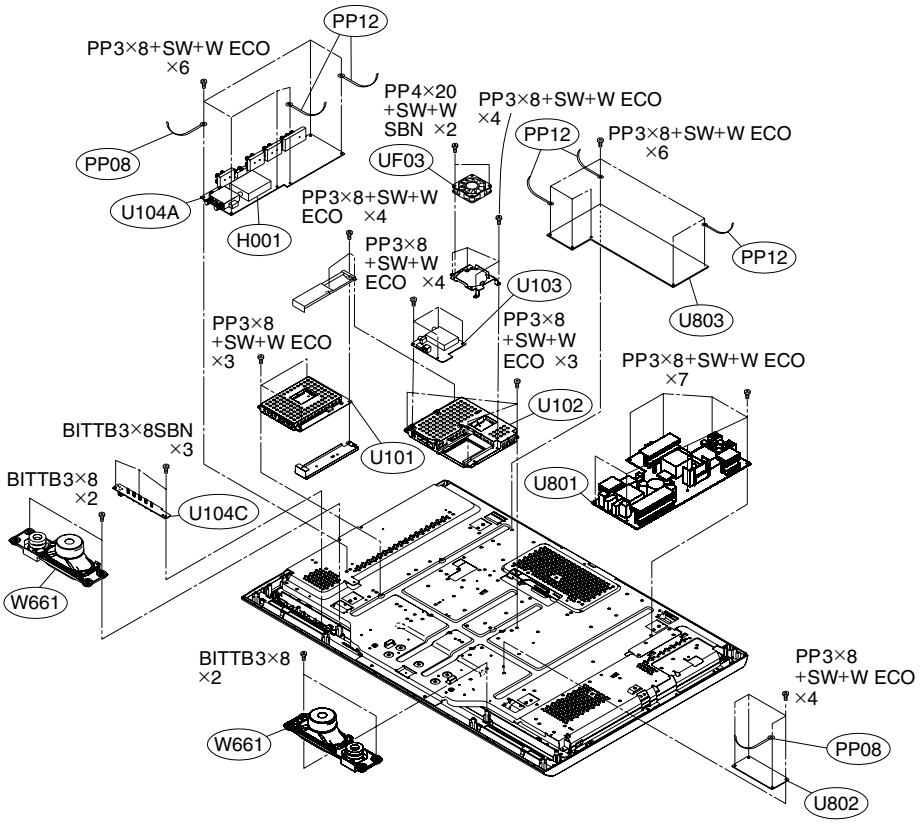
1. Remove the stand (foot) and back cover.



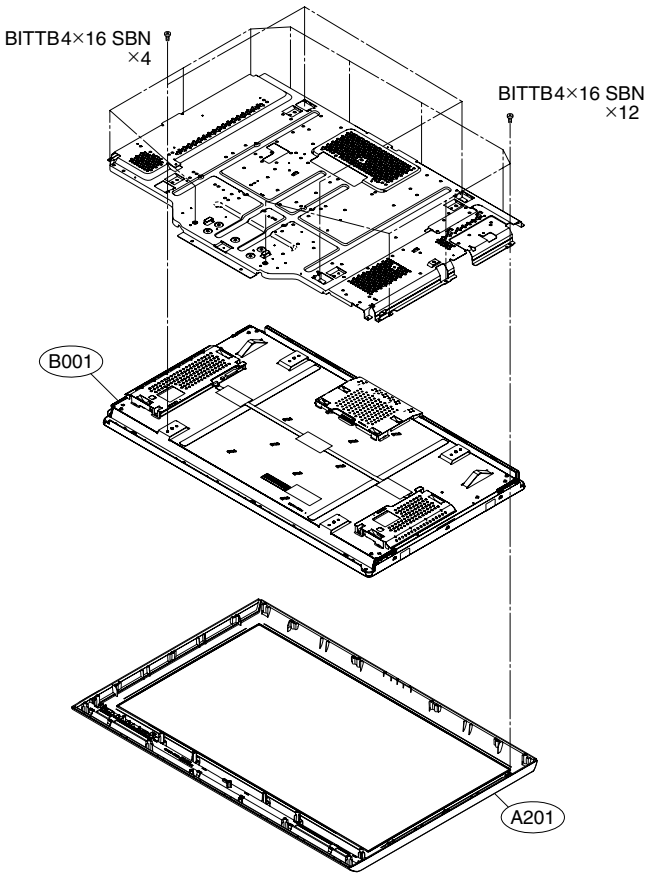
2. Remove the boards (FRONT AV, KEY-SW, PC-IN, DVD-KEY) and piece key ass'y.



3. Remove the boards (SIGNAL DVD-LCD, SEINE FOR FPD, D-TUNER, TN/AV-AOUT, LED-RMT, POWER, AC-IN, LOWB) and speaker.

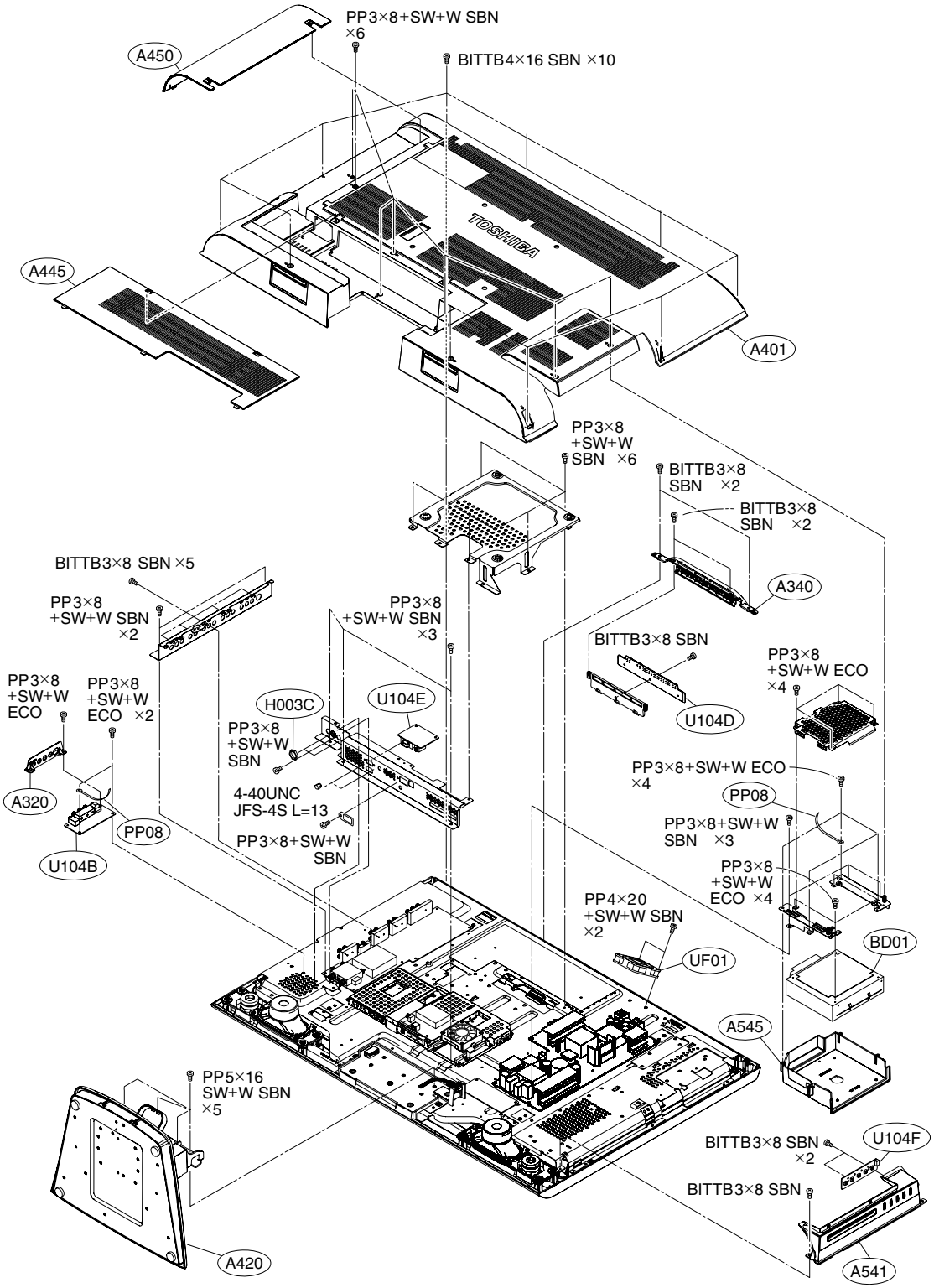


4. Remove the display.

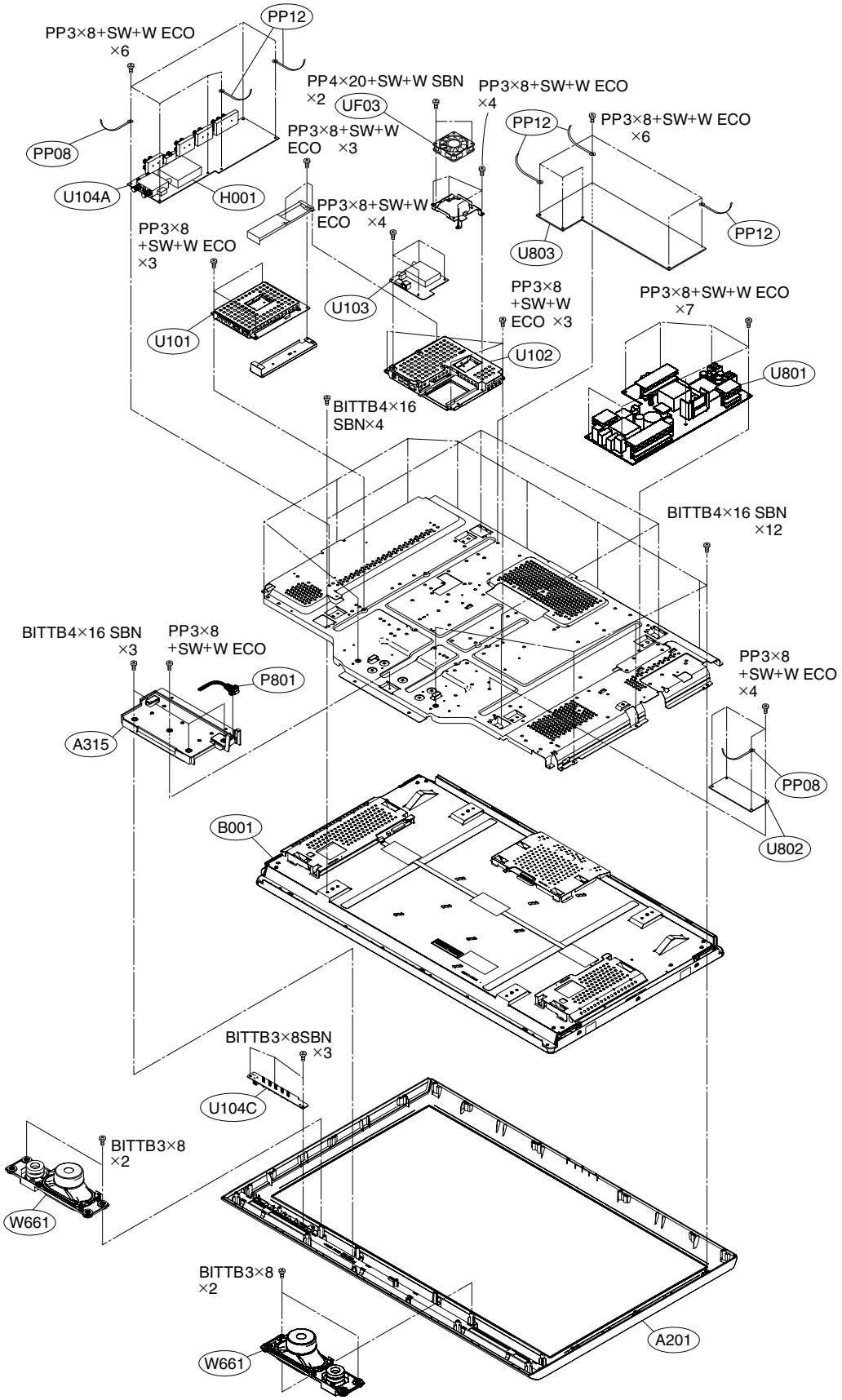


EXPLODED VIEWS

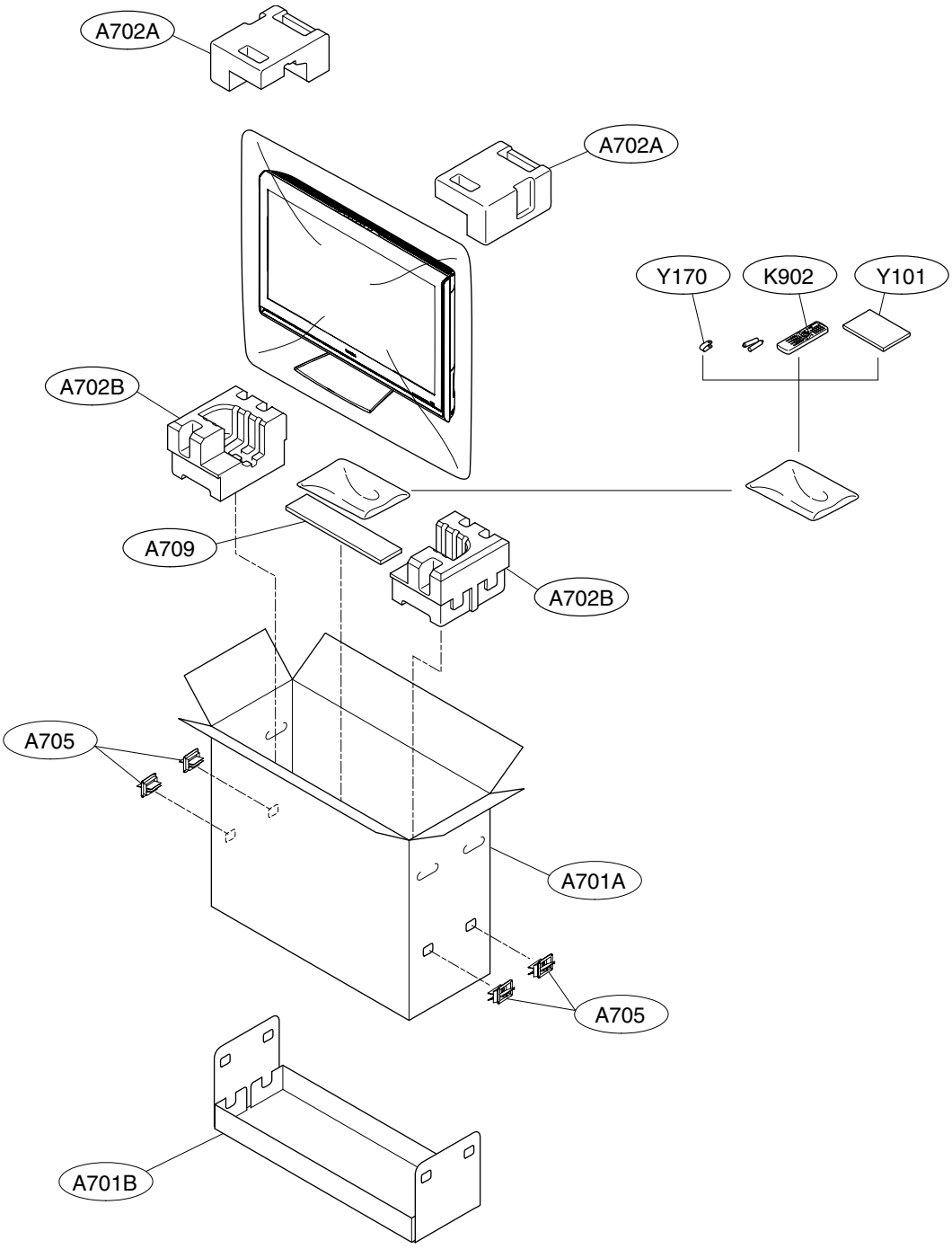
1. Chassis Block



2. Main Block


PP12
PP3×8+SW+W ECO ×6
PP4×20+SW+W SBN ×2
UF03
PP3×8+SW+W ECO ×4
PP3×8+SW+W ECO ×3
PP12
PP3×8+SW+W ECO ×6
PP08
U104A
H001
PP3×8+SW+W ECO ×4
PP3×8 +SW+W ECO ×3
U803
PP12
U103
PP3×8 +SW+W ECO ×3
PP3×8+SW+W ECO ×7
U101
U102
U801
BITTB4×16 SBN×4
BITTB4×16 SBN ×12
BITTB4×16 SBN ×3
PP3×8 +SW+W ECO
P801
PP3×8 +SW+W ECO ×4
A315
PP08
U802
B001
BITTB3×8SBN ×3
U104C
BITTB3×8 ×2
W661
BITTB3×8 ×2
A201
W661

PACKING DISASSEMBLY



CHASSIS AND CABINET REPLACEMENT PARTS LIST

WARNING: BEFORE SERVICING THIS CHASSIS, READ THE "SERVICE SAFETY PRECAUTIONS" ON PAGE 3 OF THIS MANUAL.

CAUTION: The international hazard symbols "⚠" in the schematic diagram and the parts list designate components which have special characteristics important for safety and should be replaced only with types identical to those in the original circuit or specified in the parts list. The mounting position of replacements is to be identical with originals. Before replacing any of these components, read carefully the SERVICE SAFETY PRECAUTIONS. Do not degrade the safety of the receiver through improper servicing.

NOTICE:
- *The part number must be used when ordering parts, in order to assist in processing, be sure to include the Model number and Description.*
- *The PC board assembly with * mark is no longer available after the end of the production.*

Model : 37HLX95

Capacitors	CD	:	Ceramic Disk	PF	:	Plastic Film	EL	: Electrolytic
Resistors	CF	:	Carbon Film	CC	:	Carbon Composition	MF	: Metal Film
	OMF	:	Oxide Metal Film	VR	:	Variable Resistor	FR	: Fusible Resistor

(All CD and PF capacitors are ±5%, 50V and all resistors, ±5%, 1/6W unless otherwise noted.)

Location No.	Parts No.	Description
CAPACITORS		
C102	76073019	ELECTROLYTIC, 10V 470UF M 3A
C103	76109102	CERAMIC CHIP, 50V B 1000PF K
C104	76619143	ELECTROLYTIC CHIP, 50V 4.7UF M
C105	76073019	ELECTROLYTIC, 10V 470UF M 3A
C150	76073041	ELECTROLYTIC, 16V 470UF M 3A
C151	76109102	CERAMIC CHIP, 50V B 1000PF K
C152	76109102	CERAMIC CHIP, 50V B 1000PF K
C161	76109102	CERAMIC CHIP, 50V B 1000PF K
C162	76105101	CERAMIC CHIP, 50V CH 100PF J
C164	76092730	CERAMIC CHIP, 16V B 0.1UF K
C168	76109103	CERAMIC CHIP, 50V B 0.01UF K
C169	76109103	CERAMIC CHIP, 50V B 0.01UF K
C605	76109102	CERAMIC CHIP, 50V B 1000PF K
C606	76109102	CERAMIC CHIP, 50V B 1000PF K
C660	76669479	ELECTROLYTIC, 50V 4.7UF M
C661	76669479	ELECTROLYTIC, 50V 4.7UF M
C662	76109681	CERAMIC CHIP, 50V B 680PF K
C663	76109681	CERAMIC CHIP, 50V B 680PF K
C668	76109102	CERAMIC CHIP, 50V B 1000PF K
C669	76109102	CERAMIC CHIP, 50V B 1000PF K
C670	76669100	ELECTROLYTIC, 50V 10UF M
C671	76669100	ELECTROLYTIC, 50V 10UF M
C673	76619102	ELECTROLYTIC CHIP, 16V 47UF M
C674	76092731	CERAMIC CHIP, 16V B 1UF K
C677	76092731	CERAMIC CHIP, 16V B 1UF K
C678	76285104	CERAMIC CHIP, 50V B 0.1UF K
C679	76285104	CERAMIC CHIP, 50V B 0.1UF K
C680	76073073	ELECTROLYTIC, 35V 2200UF M 3A
C681	76073073	ELECTROLYTIC, 35V 2200UF M 3A
C682	76073073	ELECTROLYTIC, 35V 2200UF M 3A
C684	76109103	CERAMIC CHIP, 50V B 0.01UF K
C685	76092538	CERAMIC CHIP, 10V F 1UF Z
C690	76664102	ELECTROLYTIC, 6.3V 1000UF M 3A
C691	76092463	CERAMIC CHIP, 16V B 0.22UF K
C692	76092463	CERAMIC CHIP, 16V B 0.22UF K
⚠ C801	76168007	MT PLA AC275V 1UF M
⚠ C802	76503508	MT PLA PCX2 337 11474
C806	76092555	CERAMIC DISC, AC250V E 1000PF M
C807	76092555	CERAMIC DISC, AC250V E 1000PF M
C808	76092553	CERAMIC DISC, AC250V B 470PF K

Location No.	Parts No.	Description
C809	76092553	CERAMIC DISC, AC250V B 470PF K
⚠ C812	76109102	CERAMIC CHIP, 50V B 1000PF K
C814	76109102	CERAMIC CHIP, 50V B 1000PF K
C815	76073037	ELECTROLYTIC, 16V 47UF M 3A
C816	76109102	CERAMIC CHIP, 50V B 1000PF K
C817	76109102	CERAMIC CHIP, 50V B 1000PF K
C818	76669010	ELECTROLYTIC, 50V 1UF M
C819	76539684	PLASTIC FILM, 50V 0.68UF J
C820	76125010	ELECTROLYTIC CE69R 450V 270UF M 3H
C821	76125011	ELECTROLYTIC CE04R 450V 82UF M 4A
C822	76214103	CERAMIC DISC, 500V B 0.01UF K
C824	76168008	MT PLA 450V 1UF K
C825	76168008	MT PLA 450V 1UF K
C826	76092339	CERAMIC DISC, 2KV 330PF K
C827	76092339	CERAMIC DISC, 2KV 330PF K
C840	76125009	ELECTROLYTIC 450V 47UF M
C843	76166001	CERAMIC DISK CC45 SL 3.15KV 47PF J
C844	76669479	ELECTROLYTIC, 50V 4.7UF M
C845	76073196	ELECTROLYTIC, 50V 22UF M 3A
C846	76073140	ELECTROLYTIC CE04P 10V 680UF M 3A
C847	76665471	ELECTROLYTIC, 10V 470UF M
C848	76214471	CERAMIC DISC, 500V B 470PF K
C860	76214103	CERAMIC DISC, 500V B 0.01UF K
C861	76503053	PLASTIC FILM, 63V 1UF J
C862	76669229	ELECTROLYTIC, 50V 2.2UF M
C863	76503049	PLASTIC FILM, 63V 0.47UF J
C864	76567224	PLASTIC FILM, 50V 0.22UF J
C865	76567224	PLASTIC FILM, 50V 0.22UF J
C866	76092341	CERAMIC DISC, 2KV R 470PF K
C868	76435221	CERAMIC DISC, 500V SL 220PF J
C869	76435221	CERAMIC DISC, 500V SL 220PF J
C870	76503425	PLASTIC FILM CQ92 3D2J473J-K5
C872	76073189	ELECTROLYTIC, 35V 1000UF M
C873	76073189	ELECTROLYTIC, 35V 1000UF M
C876	76073204	ELECTROLYTIC CE04P 50V 330UF M 3A
C877	76669229	ELECTROLYTIC, 50V 2.2UF M
C878	76503041	PLASTIC FILM , 63V 0.1UF J
C880	76503229	PLASTIC FILM, 1250VH 1000PF H
C881	76092337	CERAMIC DISC, 2KV 220PF K
C882	76567334	PLASTIC FILM, 50V 0.33UF J
C883	76212221	CERAMIC DISC, 50V B 220PF K

Location No.	Parts No.	Description
C884	76073196	ELECTROLYTIC, 50V 22UF M 3A
C885	76214471	CERAMIC DISC, 500V B 470PF K
C886	76212152	CERAMIC DISC, 50V B 1500PF K
C887	76214471	CERAMIC DISC, 500V B 470PF K
C888	76073189	ELECTROLYTIC, 35V 1000UF M
C889	76073189	ELECTROLYTIC, 35V 1000UF M
C890	76796102	ELECTROLYTIC, 35V 1000UF M
C891	76214471	CERAMIC DISC, 500V B 470PF K
C892	76676100	ELECTROLYTIC, 100V 10UF M 3A
C893	76747220	ELECTROLYTIC, 50V 22UF M 7L 3A
C894	76214471	CERAMIC DISC, 500V B 470PF K
C895	76073188	ELECTROLYTIC, 35V 680UF M
C896	76073188	ELECTROLYTIC, 35V 680UF M
C897	76796102	ELECTROLYTIC, 35V 1000UF M
C898	76669010	ELECTROLYTIC, 50V 1UF M
C1801	76285104	CERAMIC CHIP, 50V B 0.1UF K
C1802	76109103	CERAMIC CHIP, 50V B 0.01UF K
C1803	76109103	CERAMIC CHIP, 50V B 0.01UF K
C1804	76109103	CERAMIC CHIP, 50V B 0.01UF K
C1805	76109103	CERAMIC CHIP, 50V B 0.01UF K
C1806	76109103	CERAMIC CHIP, 50V B 0.01UF K
C1807	76109103	CERAMIC CHIP, 50V B 0.01UF K
C1808	76109103	CERAMIC CHIP, 50V B 0.01UF K
C1809	76109103	CERAMIC CHIP, 50V B 0.01UF K
C1810	76109103	CERAMIC CHIP, 50V B 0.01UF K
C1811	76109103	CERAMIC CHIP, 50V B 0.01UF K
C8171	76092730	CERAMIC CHIP, 16V B 0.1UF K
C8191	76092730	CERAMIC CHIP, 16V B 0.1UF K
C8210	76105331	CERAMIC CHIP, 50V CH 330PF J
C8211	76815473	CERAMIC CHIP, 50V B 0.047UF K
C8212	76092178	CERAMIC CHIP, 25V B 0.1UF K
C8213	76109102	CERAMIC CHIP, 50V B 1000PF K
C8241	76073196	ELECTROLYTIC, 50V 22UF M 3A
C8250	76092341	CERAMIC DISC, 2KV R 470PF K
C8251	76434100	CERAMIC DISC, 500V SL 10PF D
C8390	76109102	CERAMIC CHIP, 50V B 1000PF K
C8401	76092733	CERAMIC CHIP, 50V B 0.022UF K
C8402	76092733	CERAMIC CHIP, 50V B 0.022UF K
C8403	76669470	ELECTROLYTIC, 50V 47UF M
C8490	76669010	ELECTROLYTIC, 50V 1UF M
C8601	76591682	PLASTIC FILM, 50V 6800PF J
C8602	76212101	CERAMIC DISC, 50V B 100PF K
C8605	76285104	CERAMIC CHIP, 50V B 0.1UF K
C8701	76567224	PLASTIC FILM, 50V 0.22UF J
C8702	76287224	CHIP CER 50V F 224Z GRM319F11H224ZA01D
C8703	76109102	CERAMIC CHIP, 50V B 1000PF K
C8801	76092730	CERAMIC CHIP, 16V B 0.1UF K
C8802	76092883	CERAMIC CHIP, 50V B 0.1UF K
C8891	76503049	PLASTIC FILM, 63V 0.47UF J
CB01	76202221	ELECTROLYTIC, 10V 220UF M 7L 3A
CB02	76202221	ELECTROLYTIC, 10V 220UF M 7L 3A
CB03	76100104	CERAMIC CHIP, 25V F 0.1UF Z
CB04	76100104	CERAMIC CHIP, 25V F 0.1UF Z
CB05	76202221	ELECTROLYTIC, 10V 220UF M 7L 3A
CB38	76100104	CERAMIC CHIP, 25V F 0.1UF Z
CC11	76109102	CERAMIC CHIP, 50V B 1000PF K
CC12	76109102	CERAMIC CHIP, 50V B 1000PF K
CC16	76109102	CERAMIC CHIP, 50V B 1000PF K
CC17	76109102	CERAMIC CHIP, 50V B 1000PF K
CD41	76105330	CERAMIC CHIP, 50V CH 33PF J
CD42	76105330	CERAMIC CHIP, 50V CH 33PF J
CD43	76105330	CERAMIC CHIP, 50V CH 33PF J
CD45	76105330	CERAMIC CHIP, 50V CH 33PF J
CD46	76105330	CERAMIC CHIP, 50V CH 33PF J
CD47	76105330	CERAMIC CHIP, 50V CH 33PF J
CD48	76105330	CERAMIC CHIP, 50V CH 33PF J

Location No.	Parts No.	Description
CD61	76105330	CERAMIC CHIP, 50V CH 33PF J
CD62	76105330	CERAMIC CHIP, 50V CH 33PF J
CD63	76105330	CERAMIC CHIP, 50V CH 33PF J
CD64	76105330	CERAMIC CHIP, 50V CH 33PF J
CD65	76105330	CERAMIC CHIP, 50V CH 33PF J
CD66	76105330	CERAMIC CHIP, 50V CH 33PF J
CD67	76105330	CERAMIC CHIP, 50V CH 33PF J
CD81	76619040	ELECTROLYTIC CHIP, 16V 10UF M 3A
CD82	76619040	ELECTROLYTIC CHIP, 16V 10UF M 3A
CD83	76109102	CERAMIC CHIP, 50V B 1000PF K
CD84	76109102	CERAMIC CHIP, 50V B 1000PF K
CD85	76105221	CERAMIC CHIP, 50V CH 220PF J
CD87	76092731	CERAMIC CHIP, 16V B 1UF K
CD88	76105221	CERAMIC CHIP, 50V CH 220PF J
CD89	76105221	CERAMIC CHIP, 50V CH 220PF J
CD90	76105221	CERAMIC CHIP, 50V CH 220PF J
CD91	76619040	ELECTROLYTIC CHIP, 16V 10UF M 3A
CD92	76109102	CERAMIC CHIP, 50V B 1000PF K
CD93	76105101	CERAMIC CHIP, 50V CH 100PF J
CD94	76109102	CERAMIC CHIP, 50V B 1000PF K
CD95	76619040	ELECTROLYTIC CHIP, 16V 10UF M 3A
CD96	76619040	ELECTROLYTIC CHIP, 16V 10UF M 3A
CE05	76073090	ELECTROLYTIC, 50V 100UF M 3A
CE08	76073090	ELECTROLYTIC, 50V 100UF M 3A
CE10	76666470	ELECTORLYTIC, 16V 47UF M 3A
CE11	76539474	PLASTIC FILM, 50V 0.47UF J
CE12	76666470	ELECTORLYTIC, 16V 47UF M 3A
CE25	76668470	ELECTROLYTIC, 35V 47UF M 3A
CE40	76073186	ELECTROLYTIC, 35V 470UF M
CE41	76617028	ELECTROLYTIC, 16V 1200UF M
CE42	76073020	ELECTROLYTIC, 10V 1000UF M 3A
CE43	76539104	PLASTIC FILM, 50V 0.1UF J
CE44	76539104	PLASTIC FILM, 50V 0.1UF J
CE45	76666470	ELECTORLYTIC, 16V 47UF M 3A
CE46	76539474	PLASTIC FILM, 50V 0.47UF J
CE47	76666470	ELECTORLYTIC, 16V 47UF M 3A
CE60	76073186	ELECTROLYTIC, 35V 470UF M
CE61	76617028	ELECTROLYTIC, 16V 1200UF M
CE62	76073020	ELECTROLYTIC, 10V 1000UF M 3A
CE63	76539104	PLASTIC FILM, 50V 0.1UF J
CE64	76539104	PLASTIC FILM, 50V 0.1UF J
CE65	76666470	ELECTORLYTIC, 16V 47UF M 3A
CE66	76539474	PLASTIC FILM, 50V 0.47UF J
CE67	76666470	ELECTORLYTIC, 16V 47UF M 3A
CE70	76073189	ELECTROLYTIC, 35V 1000UF M
CE71	76073186	ELECTROLYTIC, 35V 470UF M
CE72	76073128	ELECTROLYTIC, 6.3V 1000UF M
CE85	76666470	ELECTORLYTIC, 16V 47UF M 3A
CE90	76073186	ELECTROLYTIC, 35V 470UF M
CE91	76617028	ELECTROLYTIC, 16V 1200UF M
CE92	76666471	ELECTROLYTIC, 16V 470UF M 3A
CE93	76539104	PLASTIC FILM, 50V 0.1UF J
CE94	76539104	PLASTIC FILM, 50V 0.1UF J
CE95	76668101	ELECTROLYTIC, 35V 100UF M 3A
CS10	76092628	CERAMIC CHIP, 6.3V B 10UF K
CS11	76092628	CERAMIC CHIP, 6.3V B 10UF K
CS12	76109473	CERAMIC CHIP, 25V B 0.047UF K
CS15	76092628	CERAMIC CHIP, 6.3V B 10UF K
CS16	76092628	CERAMIC CHIP, 6.3V B 10UF K
CS40	76092611	CERAMIC CHIP, 6.3V B 2.2UF K
CS41	76092611	CERAMIC CHIP, 6.3V B 2.2UF K
CS42	76092611	CERAMIC CHIP, 6.3V B 2.2UF K
CS43	76092611	CERAMIC CHIP, 6.3V B 2.2UF K
CS44	76092611	CERAMIC CHIP, 6.3V B 2.2UF K
CS45	76092611	CERAMIC CHIP, 6.3V B 2.2UF K
CS46	76092611	CERAMIC CHIP, 6.3V B 2.2UF K

Location No.	Parts No.	Description
CS47	76092611	CERAMIC CHIP, 6.3V B 2.2UF K
CS48	76092538	CERAMIC CHIP, 10V F 1UF Z
CS49	76092538	CERAMIC CHIP, 10V F 1UF Z
CS50	76092611	CERAMIC CHIP, 6.3V B 2.2UF K
CS51	76092611	CERAMIC CHIP, 6.3V B 2.2UF K
CS52	76092611	CERAMIC CHIP, 6.3V B 2.2UF K
CS53	76092611	CERAMIC CHIP, 6.3V B 2.2UF K
CS54	76092611	CERAMIC CHIP, 6.3V B 2.2UF K
CS55	76092611	CERAMIC CHIP, 6.3V B 2.2UF K
CS56	76092611	CERAMIC CHIP, 6.3V B 2.2UF K
CS57	76619102	ELECTROLYTIC CHIP, 16V 47UF M
CS64	76619101	ELECTROLYTIC CHIP, 16V 22UF M
CS82	76092611	CERAMIC CHIP, 6.3V B 2.2UF K
CS85	76092611	CERAMIC CHIP, 6.3V B 2.2UF K
CS86	76092611	CERAMIC CHIP, 6.3V B 2.2UF K
CS501	76619100	ELECTROLYTIC CHIP, 16V 10UF M
CS502	76092726	CERAMIC CHIP, 10V B 2.2UF K
CS503	76619100	ELECTROLYTIC CHIP, 16V 10UF M
CS504	76105470	CERAMIC CHIP, 50V CH 47PF J
CS505	76105470	CERAMIC CHIP, 50V CH 47PF J
CV10	76109102	CERAMIC CHIP, 50V B 1000PF K
CV59	76105220	CERAMIC CHIP, 50V CH 22PF J
CV61	76105270	CERAMIC CHIP, 50V CH 27PF J
CV62	76105330	CERAMIC CHIP, 50V CH 33PF J
CV63	76092730	CERAMIC CHIP, 16V B 0.1UF K
CV68	76092621	CERAMIC CHIP, 10V B 1UF K
CV69	76092621	CERAMIC CHIP, 10V B 1UF K
CV72	76794471	ELECTROLYTIC, 16V 470UF M
CV74	76666101	ELECTROLYTIC, 16V 100UF M 3A
CV76	76100104	CERAMIC CHIP, 25V F 0.1UF Z
CV122	76105101	CERAMIC CHIP, 50V CH 100PF J
CV267	76619100	ELECTROLYTIC CHIP, 16V 10UF M
CV270	76619100	ELECTROLYTIC CHIP, 16V 10UF M
CV273	76619100	ELECTROLYTIC CHIP, 16V 10UF M
CV282	76619100	ELECTROLYTIC CHIP, 16V 10UF M
CV286	76109103	CERAMIC CHIP, 50V B 0.01UF K
CV287	76619102	ELECTROLYTIC CHIP, 16V 47UF M
CV289	76619100	ELECTROLYTIC CHIP, 16V 10UF M
CV291	76109103	CERAMIC CHIP, 50V B 0.01UF K
CV292	76109103	CERAMIC CHIP, 50V B 0.01UF K
CV293	76619100	ELECTROLYTIC CHIP, 16V 10UF M
CV294	76109103	CERAMIC CHIP, 50V B 0.01UF K
RESISTORS		
R103	76011101	CHIP, 1/20W 100 OHM J
R104	76011103	CHIP, 1/20W 10K OHM J
R105	76011273	CHIP, 1/20W 27K OHM J
R107	76000445	CHIP JUMPER, 1608TYPE
R108	76000445	CHIP JUMPER, 1608TYPE
R110	76011682	CHIP, 1/20W 6.8K OHM J
R114	76000445	CHIP JUMPER, 1608TYPE
R161	76011102	CHIP, 1/20W 1K OHM J
R165	76011392	CHIP, 1/20W 3.9K OHM J
R166	76011472	CHIP, 1/20W 4.7K OHM J
R167	76011101	CHIP, 1/20W 100 OHM J
R168	76011101	CHIP, 1/20W 100 OHM J
R664	76011104	CHIP, 1/20W 100K OHM J
R665	76011104	CHIP, 1/20W 100K OHM J
R670	76011472	CHIP, 1/20W 4.7K OHM J
R671	76011472	CHIP, 1/20W 4.7K OHM J
R672	76011182	CHIP, 1/20W 1.8K OHM J
R673	76011182	CHIP, 1/20W 1.8K OHM J
R678	76871229	CHIP, 1/8W 2.2 OHM J
R679	76871229	CHIP, 1/8W 2.2 OHM J
R680	76011473	CHIP, 1/20W 47K OHM J
R681	76011473	CHIP, 1/20W 47K OHM J

Location No.	Parts No.	Description
R683	76011103	CHIP, 1/20W 10K OHM J
R684	76011104	CHIP, 1/20W 100K OHM J
R685	76011222	CHIP, 1/20W 2.2K OHM J
R686	76011102	CHIP, 1/20W 1K OHM J
R687	76871102	CHIP, 1/8W 1K OHM J
R688	76871102	CHIP, 1/8W 1K OHM J
R689	76871102	CHIP, 1/8W 1K OHM J
R690	76011473	CHIP, 1/20W 47K OHM J
R691	76011103	CHIP, 1/20W 10K OHM J
R692	76011223	CHIP, 1/20W 22K OHM J
R695	76871102	CHIP, 1/8W 1K OHM J
R696	76871102	CHIP, 1/8W 1K OHM J
R697	76871102	CHIP, 1/8W 1K OHM J
⚠ R801	76017004	METAL GLAZE 1/2W 510K J
R809	76004718	METAL GLAZE, 1/2W 8.2M OHM J
R812	76011473	CHIP, 1/20W 47K OHM J
R820	76019461	METAL PLATE, 2W 0.15 OHM J
R821	76019461	METAL PLATE, 2W 0.15 OHM J
R826	76004714	METAL GLAZE, 1/2W 1.2M OHM J
R830	76007061	CERAMIC COVERED, 2W 1.8 OHM K
R831	76120003	CERAMIC COVERED G 5W 4.7 J
R840	76382823	OXIDE FILM 1W 82K J
R841	76322339	METAL FILM 1W 3R3 J
R842	76310479	OXIDE METAL FILM, 1/2W 4.7 OHM J
R860	76552271	OXIDE METAL FILM, 1/2W 270 OHM J
R862	76552681	OXIDE METAL FILM, 1/2W 680 OHM J
R863	76011272	CHIP, 1/20W 2.7K OHM J
R864	76552101	OXIDE METAL FILM, 1/2W 100 OHM J
R865	76552100	OXIDE METAL FILM, 1/2W 10 OHM J
R867	76552330	OXIDE METAL FILM, 1/2W 33 OHM J
R880	76553683	OXIDE METAL FILM, 1W 68K OHM J
R881	76553683	OXIDE METAL FILM, 1W 68K OHM J
R882	76323569	METAL FILM 2W 5R6 J
R883	76079010	METAL RES 2W R47 J
R884	76321339	OXIDE METAL FILM, 1/2W 3.3 OHM J
R885	76553101	OXIDE METAL FILM, 1W 100 OHM J
R886	76554432	OXIDE FILM 2W 4.3K J
R4100	76011102	CHIP, 1/20W 1K OHM J
R4101	76011681	CHIP, 1/20W 680 OHM J
R4102	76011471	CHIP, 1/20W 470 OHM J
R4103	76011102	CHIP, 1/20W 1K OHM J
R4104	76011152	CHIP, 1/20W 1.5K OHM J
R4105	76011102	CHIP, 1/20W 1K OHM J
R4106	76011681	CHIP, 1/20W 680 OHM J
R4107	76011471	CHIP, 1/20W 470 OHM J
R4108	76011102	CHIP, 1/20W 1K OHM J
R4109	76011152	CHIP, 1/20W 1.5K OHM J
R4120	76000445	CHIP JUMPER, 1608TYPE
R4122	76000445	CHIP JUMPER, 1608TYPE
R6601	76011223	CHIP, 1/20W 22K OHM J
R6602	76011472	CHIP, 1/20W 4.7K OHM J
R6603	76011223	CHIP, 1/20W 22K OHM J
R6604	76011102	CHIP, 1/20W 1K OHM J
R6605	76011103	CHIP, 1/20W 10K OHM J
R6606	76011104	CHIP, 1/20W 100K OHM J
R8110	76000250	METAL FILM, 1/4W 56K OHM F
R8111	76000250	METAL FILM, 1/4W 56K OHM F
R8112	76000250	METAL FILM, 1/4W 56K OHM F
R8113	76000250	METAL FILM, 1/4W 56K OHM F
R8114	76000527	METAL FILM, 1/4W 5.6K OHM F
R8115	76000639	METAL FILM, 1/4W 22K OHM F
R8116	76000554	CHIP, 1/16W 510 F
R8117	76000574	METAL FILM CHIP 1/16W 2.7K F
R8118	76000574	METAL FILM CHIP 1/16W 2.7K F
R8130	76871182	CHIP, 1/8W 1.8K OHM J
R8131	76871182	CHIP, 1/8W 1.8K OHM J

Location No.	Parts No.	Description
R8132	76871182	CHIP, 1/8W 1.8K OHM J
R8133	76011102	CHIP, 1/20W 1K OHM J
R8140	76011682	CHIP, 1/20W 6.8K OHM J
R8141	76011473	CHIP, 1/20W 47K OHM J
R8142	76872470	CHIP, 1/16W 47 OHM J
R8143	76872470	CHIP, 1/16W 47 OHM J
R8144	76872390	CHIP, 1/16W 39 OHM J
R8150	76011562	CHIP, 1/20W 5.6K OHM J
R8151	76011222	CHIP, 1/20W 2.2K OHM J
R8152	76011473	CHIP, 1/20W 47K OHM J
R8160	76011103	CHIP, 1/20W 10K OHM J
R8161	76011473	CHIP, 1/20W 47K OHM J
R8162	76011103	CHIP, 1/20W 10K OHM J
R8191	76000445	CHIP JUMPER, 1608TYPE
R8192	76011471	CHIP, 1/20W 470 OHM J
R8193	76011102	CHIP, 1/20W 1K OHM J
R8194	76011151	CHIP, 1/20W 150 OHM J
R8195	76011151	CHIP, 1/20W 150 OHM J
R8210	76998471	CHIP, 1/16W 470 OHM
R8212	76998102	CHIP, 1/16W 1K OHM
R8213	76011222	CHIP, 1/20W 2.2K OHM J
R8214	76000445	CHIP JUMPER, 1608TYPE
R8215	76998222	CHIP, 1/16W 2.2K OHM
R8216	76998222	CHIP, 1/16W 2.2K OHM
R8217	76011229	CHIP, 1/16W 2.2 OHM J
R8218	76998152	CHIP, 1/16W 1.5K OHM D
R8230	76872332	CHIP, 1/16W 3.3K OHM J
R8231	76011223	CHIP, 1/20W 22K OHM J
R8232	76011472	CHIP, 1/20W 4.7K OHM J
R8233	76011473	CHIP, 1/20W 47K OHM J
R8240	76190015	CHIP RES 1/16W 473D
R8241	76190015	CHIP RES 1/16W 473D
R8242	76190015	CHIP RES 1/16W 473D
R8243	76190015	CHIP RES 1/16W 473D
R8244	76190015	CHIP RES 1/16W 473D
R8245	76190015	CHIP RES 1/16W 473D
R8246	76190015	CHIP RES 1/16W 473D
R8247	76190015	CHIP RES 1/16W 473D
R8248	76190015	CHIP RES 1/16W 473D
R8249	76000445	CHIP JUMPER, 1608TYPE
R8310	76011223	CHIP, 1/20W 22K OHM J
R8312	76011471	CHIP, 1/20W 470 OHM J
R8313	76011102	CHIP, 1/20W 1K OHM J
R8390	76011473	CHIP, 1/20W 47K OHM J
R8391	76011102	CHIP, 1/20W 1K OHM J
R8392	76011681	CHIP, 1/20W 680 OHM J
R8393	76011681	CHIP, 1/20W 680 OHM J
R8394	76011681	CHIP, 1/20W 680 OHM J
R8395	76011681	CHIP, 1/20W 680 OHM J
R8396	76011222	CHIP, 1/20W 2.2K OHM J
R8403	76011102	CHIP, 1/20W 1K OHM J
R8404	76011101	CHIP, 1/20W 100 OHM J
R8405	76011102	CHIP, 1/20W 1K OHM J
R8406	76011473	CHIP, 1/20W 47K OHM J
R8407	76000572	CHIP, 1/16W 3.3K F
R8408	76000422	CHIP, 1/16W 2.2K F
R8409	76011102	CHIP, 1/20W 1K OHM J
R8410	76000445	CHIP JUMPER, 1608TYPE
R8411	76321479	OXIDE METAL FILM, 1/2W 4.7 OHM J
R8412	76871822	CHIP, 1/8W 8.2K OHM J
R8601	76000247	METAL FILM, 1/4W 39K OHM F
R8602	76366472	CARBON FILM, 1/6W 4.7K OHM J
R8603	76011103	CHIP, 1/20W 10K OHM J
R8604	76011102	CHIP, 1/20W 1K OHM J
R8605	76011472	CHIP, 1/20W 4.7K OHM J
R8606	76011103	CHIP, 1/20W 10K OHM J

Location No.	Parts No.	Description
R8607	76872221	CHIP, 1/16W 220 OHM J
R8701	76000595	CHIP, 1/16W 15K F
R8702	76190012	METAL FILM CHIP 1/16W 1.5K F
R8703	76011221	CHIP, 1/20W 220 OHM J
R8704	76000445	CHIP JUMPER, 1608TYPE
R8705	76011220	CHIP, 1/20W 22 OHM J
R8706	76011103	CHIP, 1/20W 10K OHM J
R8707	76011103	CHIP, 1/20W 10K OHM J
R8709	76011101	CHIP, 1/20W 100 OHM J
R8710	76011101	CHIP, 1/20W 100 OHM J
R8711	76011223	CHIP, 1/20W 22K OHM J
R8712	76011473	CHIP, 1/20W 47K OHM J
R8713	76011103	CHIP, 1/20W 10K OHM J
R8714	76011102	CHIP, 1/20W 1K OHM J
R8715	76011102	CHIP, 1/20W 1K OHM J
R8716	76011103	CHIP, 1/20W 10K OHM J
R8801	76011102	CHIP, 1/20W 1K OHM J
R8802	76011102	CHIP, 1/20W 1K OHM J
R8803	76366221	CARBON FILM, 1/6W 220 OHM J
R8804	76871222	CHIP, 1/8W 2.2K OHM J
R8805	76011102	CHIP, 1/20W 1K OHM J
R8806	76011102	CHIP, 1/20W 1K OHM J
R8807	76011152	CHIP, 1/20W 1.5K OHM J
R8808	76011101	CHIP, 1/20W 100 OHM J
R8809	76011223	CHIP, 1/20W 22K OHM J
R8810	76000605	CHIP, 1/16W 6.8K OHM F
R8811	76190012	METAL FILM CHIP 1/16W 1.5K F
R8812	76000446	CHIP, 1/16W 220 F
R8813	76000824	CHIP JUMPER, 2125TYPE
R8814	76011103	CHIP, 1/20W 10K OHM J
R8815	76872151	CHIP, 1/16W 150 OHM J
RA71	76011683	CHIP, 1/20W 68K OHM J
RA72	76011223	CHIP, 1/20W 22K OHM J
RA73	76011103	CHIP, 1/20W 10K OHM J
RA74	76000445	CHIP JUMPER, 1608TYPE
RA76	76011223	CHIP, 1/20W 22K OHM J
RA77	76011103	CHIP, 1/20W 10K OHM J
RA78	76000445	CHIP JUMPER, 1608TYPE
RA79	76000445	CHIP JUMPER, 1608TYPE
RB08	76011470	CHIP, 1/20W 47 OHM J
RB09	76011470	CHIP, 1/20W 47 OHM J
RB10	76011331	CHIP, 1/20W 330 OHM J
RB15	76011471	CHIP, 1/20W 470 OHM J
RB24	76000445	CHIP JUMPER, 1608TYPE
RC11	76011101	CHIP, 1/20W 100 OHM J
RC12	76011101	CHIP, 1/20W 100 OHM J
RC40	76011101	CHIP, 1/20W 100 OHM J
RC41	76011101	CHIP, 1/20W 100 OHM J
RD41	76011101	CHIP, 1/20W 100 OHM J
RD43	76000445	CHIP JUMPER, 1608TYPE
RD44	76000445	CHIP JUMPER, 1608TYPE
RD45	76011101	CHIP, 1/20W 100 OHM J
RD50	76000445	CHIP JUMPER, 1608TYPE
RD51	76000445	CHIP JUMPER, 1608TYPE
RD52	76000445	CHIP JUMPER, 1608TYPE
RD53	76000445	CHIP JUMPER, 1608TYPE
RD54	76000445	CHIP JUMPER, 1608TYPE
RD55	76000445	CHIP JUMPER, 1608TYPE
RD56	76000445	CHIP JUMPER, 1608TYPE
RD57	76000445	CHIP JUMPER, 1608TYPE
RD59	76000445	CHIP JUMPER, 1608TYPE
RD61	76011101	CHIP, 1/20W 100 OHM J
RD62	76011101	CHIP, 1/20W 100 OHM J
RD63	76011101	CHIP, 1/20W 100 OHM J
RD73	76011153	CHIP, 1/2OW 15K OHM J
RD74	76000445	CHIP JUMPER, 1608TYPE

Location No.	Parts No.	Description
RD76	76011563	CHIP, 1/20W 56K OHM J
RD77	76011153	CHIP, 1/2OW 15K OHM J
RD78	76000445	CHIP JUMPER, 1608TYPE
RD82	76011471	CHIP, 1/20W 470 OHM J
RD83	76011562	CHIP, 1/20W 5.6K OHM J
RD84	76011562	CHIP, 1/20W 5.6K OHM J
RD85	76011562	CHIP, 1/20W 5.6K OHM J
RD86	76011562	CHIP, 1/20W 5.6K OHM J
RD88	76011222	CHIP, 1/20W 2.2K OHM J
RD89	76011562	CHIP, 1/20W 5.6K OHM J
RD90	76011102	CHIP, 1/20W 1K OHM J
RD100	76011562	CHIP, 1/20W 5.6K OHM J
RD101	76011102	CHIP, 1/20W 1K OHM J
RD102	76011562	CHIP, 1/20W 5.6K OHM J
RD103	76011562	CHIP, 1/20W 5.6K OHM J
RD105	76011471	CHIP, 1/20W 470 OHM J
RD106	76011562	CHIP, 1/20W 5.6K OHM J
RD107	76011562	CHIP, 1/20W 5.6K OHM J
RE01	76366153	CARBON FILM, 1/6W 15K OHM J
RE02	76366473	CARBON FILM, 1/6W 47K OHM J
RE03	76366153	CARBON FILM, 1/6W 15K OHM J
RE04	76366222	CARBON FILM, 1/6W 2.2K OHM J
RE05	76366472	CARBON FILM, 1/6W 4.7K OHM J
RE06	76366473	CARBON FILM, 1/6W 47K OHM J
RE08	76366472	CARBON FILM, 1/6W 4.7K OHM J
RE09	76366473	CARBON FILM, 1/6W 47K OHM J
RE10	76367180	CARBON FILM, 1/6W 18 OHM G
RE11	76367222	CARBON FILM, 1/6W 2.2K OHM G
RE12	76366472	CARBON FILM, 1/6W 4.7K OHM J
RE13	76366102	CARBON FILM, 1/6W 1K OHM J
RE15	76366182	CARBON FILM, 1/6W 1.8K OHM J
RE16	76366473	CARBON FILM, 1/6W 47K OHM J
RE17	76366103	CARBON FILM, 1/6W 10K OHM J
RE18	76366153	CARBON FILM, 1/6W 15K OHM J
RE19	76366473	CARBON FILM, 1/6W 47K OHM J
RE27	76552102	OXIDE METAL FILM, 1/2W 1K OHM J
RE28	76552332	OXIDE METAL FILM, 1/2W 3.3K OHM J
RE29	76366103	CARBON FILM, 1/6W 10K OHM J
RE34	76366473	CARBON FILM, 1/6W 47K OHM J
RE40	76182047	METAL FILM 1/4W 33 F
RE41	76000360	METAL FILM, 1/4W 1.2K OHM F
RE43	76366102	CARBON FILM, 1/6W 1K OHM J
RE44	76366103	CARBON FILM, 1/6W 10K OHM J
RE45	76367101	CARBON FILM, 1/6W 100 OHM G
RE46	76367222	CARBON FILM, 1/6W 2.2K OHM G
RE60	76000142	METAL FILM, 1/4W 240 OHM F
RE61	76000360	METAL FILM, 1/4W 1.2K OHM F
RE63	76366102	CARBON FILM, 1/6W 1K OHM J
RE65	76367620	CARBON FILM 1/6W 62 G
RE66	76367222	CARBON FILM, 1/6W 2.2K OHM G
RE70	76366184	CARBON FILM, 1/6W 18OK OHM J
RE73	76366102	CARBON FILM, 1/6W 1K OHM J
RE85	76552102	OXIDE METAL FILM, 1/2W 1K OHM J
RE86	76366152	CARBON FILM, 1/6W 1.5K OHM J
RE87	76366473	CARBON FILM, 1/6W 47K OHM J
RE88	76366153	CARBON FILM, 1/6W 15K OHM J
RE90	76000155	METAL FILM, 1/4W 15 OHM F
RE91	76000358	METAL FILM, 1/4W 1K OHM F
RE92	76366101	CARBON FILM, 1/6W 100 OHM J
RE93	76366102	CARBON FILM, 1/6W 1K OHM J
RE94	76553101	OXIDE METAL FILM, 1W 100 OHM J
RE95	76552102	OXIDE METAL FILM, 1/2W 1K OHM J
RE96	76366473	CARBON FILM, 1/6W 47K OHM J
RE97	76366472	CARBON FILM, 1/6W 4.7K OHM J
RE98	76366473	CARBON FILM, 1/6W 47K OHM J
RE99	76366101	CARBON FILM, 1/6W 100 OHM J

Location No.	Parts No.	Description
RR01	76871750	CHIP, 1/8W 75 OHM J
RR02	76871750	CHIP, 1/8W 75 OHM J
RR03	76871750	CHIP, 1/8W 75 OHM J
RR04	76011330	CHIP, 1/20W 33 OHM J
RR05	76011330	CHIP, 1/20W 33 OHM J
RR06	76011330	CHIP, 1/20W 33 OHM J
RS16	76011473	CHIP, 1/20W 47K OHM J
RS17	76011473	CHIP, 1/20W 47K OHM J
RS18	76011103	CHIP, 1/20W 10K OHM J
RS19	76011104	CHIP, 1/20W 100K OHM J
RS20	76011104	CHIP, 1/20W 100K OHM J
RS25	76011101	CHIP, 1/20W 100 OHM J
RS26	76011101	CHIP, 1/20W 100 OHM J
RS27	76011222	CHIP, 1/20W 2.2K OHM J
RS28	76011222	CHIP, 1/20W 2.2K OHM J
RS29	76011102	CHIP, 1/20W 1K OHM J
RS30	76011102	CHIP, 1/20W 1K OHM J
RS31	76011104	CHIP, 1/20W 100K OHM J
RS32	76011104	CHIP, 1/20W 100K OHM J
RS33	76011473	CHIP, 1/20W 47K OHM J
RS34	76011473	CHIP, 1/20W 47K OHM J
RS35	76011104	CHIP, 1/20W 100K OHM J
RS40	76011472	CHIP, 1/20W 4.7K OHM J
RS41	76011472	CHIP, 1/20W 4.7K OHM J
RS42	76011472	CHIP, 1/20W 4.7K OHM J
RS43	76011472	CHIP, 1/20W 4.7K OHM J
RS44	76011472	CHIP, 1/20W 4.7K OHM J
RS45	76011472	CHIP, 1/20W 4.7K OHM J
RS46	76011472	CHIP, 1/20W 4.7K OHM J
RS47	76011472	CHIP, 1/20W 4.7K OHM J
RS48	76011472	CHIP, 1/20W 4.7K OHM J
RS49	76011472	CHIP, 1/20W 4.7K OHM J
RS50	76011472	CHIP, 1/20W 4.7K OHM J
RS51	76011472	CHIP, 1/20W 4.7K OHM J
RS52	76011472	CHIP, 1/20W 4.7K OHM J
RS53	76011472	CHIP, 1/20W 4.7K OHM J
RS54	76011682	CHIP, 1/20W 6.8K OHM J
RS55	76011472	CHIP, 1/20W 4.7K OHM J
RS56	76011472	CHIP, 1/20W 4.7K OHM J
RS58	76011101	CHIP, 1/20W 100 OHM J
RS59	76011101	CHIP, 1/20W 100 OHM J
RS60	76011101	CHIP, 1/20W 100 OHM J
RS61	76011101	CHIP, 1/20W 100 OHM J
RS64	76011682	CHIP, 1/20W 6.8K OHM J
RS65	76011182	CHIP, 1/20W 1.8K OHM J
RS66	76011100	CHIP, 1/20W 10 OHM J
RS78	76011102	CHIP, 1/20W 1K OHM J
RS81	76011102	CHIP, 1/20W 1K OHM J
RS82	76011682	CHIP, 1/20W 6.8K OHM J
RS85	76011472	CHIP, 1/20W 4.7K OHM J
RS86	76011472	CHIP, 1/20W 4.7K OHM J
RS87	76011101	CHIP, 1/20W 100 OHM J
RS88	76011101	CHIP, 1/20W 100 OHM J
RS500	76011103	CHIP, 1/20W 10K OHM J
RS501	76011153	CHIP, 1/2OW 15K OHM J
RS504	76011153	CHIP, 1/2OW 15K OHM J
RS505	76011103	CHIP, 1/20W 10K OHM J
RS516	76011101	CHIP, 1/20W 100 OHM J
RS517	76011101	CHIP, 1/20W 100 OHM J
RV07	76011750	CHIP, 1/20W 75 OHM J
RV18	76011750	CHIP, 1/20W 75 OHM J
RV19	76011750	CHIP, 1/20W 75 OHM J
RV20	76000445	CHIP JUMPER, 1608TYPE
RV21	76011750	CHIP, 1/20W 75 OHM J
RV25	76011750	CHIP, 1/20W 75 OHM J
RV26	76011750	CHIP, 1/20W 75 OHM J

Location No.	Parts No.	Description
RV27	76011750	CHIP, 1/20W 75 OHM J
RV28	76011750	CHIP, 1/20W 75 OHM J
RV29	76011750	CHIP, 1/20W 75 OHM J
RV30	76011750	CHIP, 1/20W 75 OHM J
RV31	76011750	CHIP, 1/20W 75 OHM J
RV32	76011750	CHIP, 1/20W 75 OHM J
RV33	76011750	CHIP, 1/20W 75 OHM J
RV34	76011331	CHIP, 1/20W 330 OHM J
RV41	76000445	CHIP JUMPER, 1608TYPE
RV42	76000445	CHIP JUMPER, 1608TYPE
RV43	76000445	CHIP JUMPER, 1608TYPE
RV44	76000445	CHIP JUMPER, 1608TYPE
RV45	76011750	CHIP, 1/20W 75 OHM J
RV46	76011750	CHIP, 1/20W 75 OHM J
RV61	76011222	CHIP, 1/20W 2.2K OHM J
RV62	76011391	CHIP, 1/20W 390 OHM J
RV76	76011750	CHIP, 1/20W 75 OHM J
RV78	76011123	CHIP, 1/20W 12K OHM J
RV200	76000445	CHIP JUMPER, 1608TYPE
RV201	76000445	CHIP JUMPER, 1608TYPE
RV202	76000445	CHIP JUMPER, 1608TYPE
RV203	76000445	CHIP JUMPER, 1608TYPE
RV204	76000445	CHIP JUMPER, 1608TYPE
RV205	76000445	CHIP JUMPER, 1608TYPE
RV280	76000445	CHIP JUMPER, 1608TYPE
RV281	76000445	CHIP JUMPER, 1608TYPE
RV287	76000445	CHIP JUMPER, 1608TYPE
RV288	76000445	CHIP JUMPER, 1608TYPE
RV289	76000445	CHIP JUMPER, 1608TYPE
RV290	76000445	CHIP JUMPER, 1608TYPE
RV291	76000445	CHIP JUMPER, 1608TYPE
RV292	76000445	CHIP JUMPER, 1608TYPE
RV306	76011473	CHIP, 1/20W 47K OHM J
RV414	76011222	CHIP, 1/20W 2.2K OHM J
RV415	76011222	CHIP, 1/20W 2.2K OHM J
RV416	76011222	CHIP, 1/20W 2.2K OHM J
COIL & TRANSFORMERS		
L101	23248398	COIL, CHOKE, TLN3278D
L102	23103828	INDUCTOR, BEAD, TEM2121M
L103	23103828	INDUCTOR, BEAD, TEM2121M
L151	23103828	INDUCTOR, BEAD, TEM2121M
L152	23103828	INDUCTOR, BEAD, TEM2121M
L820	23248491	COIL, CHOKE 26X13 108MMH 5A TLN3641AF
L821	23248491	COIL, CHOKE 26X13 108MMH 5A TLN3641AF
L824	23103330	FILTER, FERRITE CHOKE 3.5X5X2 TEM2014AH
L825	23103304	FERRITE CHOKE, TEM2011AA
L840	23289981	COIL, PEAKING, TRF4330AZ
L860	23103320	COIL, CHOKE, TEM2011
L862	23103320	COIL, CHOKE, TEM2011
L870	23103320	COIL, CHOKE, TEM2011
L871	23103320	COIL, CHOKE, TEM2011
L878	23248489	COIL, CHOKE COIL 1.5MMH 8A TLN3639AH
L880	23103304	FERRITE CHOKE, TEM2011AA
L881	23248388	COIL, CHOKE 9X11H 4.7MMHK 4.0A TLN3515AA
L883	23103304	FERRITE CHOKE, TEM2011AA
L884	23248387	COIL, CHOKE 9X11H 22MMHK 2.5A TLN3499AA
L886	23103304	FERRITE CHOKE, TEM2011AA
L8211	23103330	FILTER, FERRITE CHOKE 3.5X5X2 TEM2014AH
L8212	23103330	FILTER, FERRITE CHOKE 3.5X5X2 TEM2014AH
LD01	23103238	INDUCTOR, BEAD, TEM2142AD
LD40	23103230	INDUCTOR, BEAD, TEM2134AD
LD41	23103230	INDUCTOR, BEAD, TEM2134AD
LD42	23103230	INDUCTOR, BEAD, TEM2134AD
LD43	23103230	INDUCTOR, BEAD, TEM2134AD
LD44	23103230	INDUCTOR, BEAD, TEM2134AD

Location No.	Parts No.	Description
LD61	23103230	INDUCTOR, BEAD, TEM2134AD
LD62	23103230	INDUCTOR, BEAD, TEM2134AD
LD63	23103230	INDUCTOR, BEAD, TEM2134AD
LD64	23103230	INDUCTOR, BEAD, TEM2134AD
LD65	23103230	INDUCTOR, BEAD, TEM2134AD
LE10	23289980	COIL, PEAKING, TRF4220AZ
LE40	23248456	COIL, CHOKE, TLN3540AH
LE41	23289980	COIL, PEAKING, TRF4220AZ
LE42	23248387	COIL, CHOKE 9X11H 22MMHK 2.5A TLN3499AA
LE60	23248456	COIL, CHOKE, TLN3540AH
LE61	23289980	COIL, PEAKING, TRF4220AZ
LE62	23248387	COIL, CHOKE 9X11H 22MMHK 2.5A TLN3499AA
LE70	23248387	COIL, CHOKE 9X11H 22MMHK 2.5A TLN3499AA
LE71	23248386	COIL, CHOKE 9X11H 2.0MMH 4.0A TLN3481AA
LE90	23248456	COIL, CHOKE, TLN3540AH
LE91	23289980	COIL, PEAKING, TRF4220AZ
LE92	23248387	COIL, CHOKE 9X11H 22MMHK 2.5A TLN3499AA
LV29	23246654	COIL, CHIP, TRF4220CG
LV31	23246662	COIL, CHIP, TRF4100CN
LV247	23246662	COIL, CHIP, TRF4100CN
⚠ T801	23211904	COIL, LINE FILTER 35X34H 10MH TRF3255AF
T802	23211904	COIL, LINE FILTER 35X34H 10MH TRF3255AF
T820	23217799	TRANSFORMER,CONVERTERTPW3564AS
T822	23248490	COIL, CHOKE EI25 5.3MMH 8.0A TLN3640AH
T840	23217800	TRANSFORMER,CONVERTERTPW3565AS
T860	23217802	TRANSFORMER,CONVERTERTPW3567AS
T880	23217801	TRANSFORMER,CONVERTERTPW3566AS
SEMICONDUCTORS		
Q101	23205506	TRANSISTOR, 2SC4081 Q
Q161	23205506	TRANSISTOR, 2SC4081 Q
Q660	23205506	TRANSISTOR, 2SC4081 Q
Q661	23205506	TRANSISTOR, 2SC4081 Q
Q663	23205506	TRANSISTOR, 2SC4081 Q
Q664	23205506	TRANSISTOR, 2SC4081 Q
Q665	23205325	TRANSISTOR,RN2404(F)
Q670	23085039	IC, TA8246AHQ
Q671	23205302	TRANSISTOR,2SC3326-B(F)
Q672	23205302	TRANSISTOR,2SC3326-B(F)
Q673	23205443	TRANSISTOR,2SA1162-Y(F)
Q812	23205506	TRANSISTOR, 2SC4081 Q
Q813	23000823	IC, PHOTO COUPLER, TLP421F(GR)
Q814	23205506	TRANSISTOR, 2SC4081 Q
Q815	23205506	TRANSISTOR, 2SC4081 Q
Q816	23205506	TRANSISTOR, 2SC4081 Q
Q820	23135094	IC, PFC 7PIN SRX2039
Q821	23000823	IC, PHOTO COUPLER, TLP421F(GR)
Q822	23205339	TRANSISTOR,2SC2655-Y(F)
Q840	23135083	IC, HYBRID VDSS=800V
Q841	23000823	IC, PHOTO COUPLER, TLP421F(GR)
Q842	23085389	IC, NJM431L
Q860	23135066	IC, STRZ4479
Q862	23000823	IC, PHOTO COUPLER, TLP421F(GR)
Q863	23000823	IC, PHOTO COUPLER, TLP421F(GR)
Q864	23205339	TRANSISTOR,2SC2655-Y(F)
Q870	23085389	IC, NJM431L
Q880	23135072	IC, STRW6765
Q881	23000823	IC, PHOTO COUPLER, TLP421F(GR)
Q882	23085389	IC, NJM431L
Q4100	23085635	TRANSISTOR,2SC3437-Y(TE85L,F)
Q4101	23085635	TRANSISTOR,2SC3437-Y(TE85L,F)
Q4102	23085635	TRANSISTOR,2SC3437-Y(TE85L,F)
Q4103	23085635	TRANSISTOR,2SC3437-Y(TE85L,F)
Q8191	23205506	TRANSISTOR, 2SC4081 Q
Q8230	23205328	TRANSISTOR,RN1405(F)
Q8231	23205506	TRANSISTOR, 2SC4081 Q

Location No.	Parts No.	Description
Q8310	23205328	TRANSISTOR,RN1405(F)
Q8311	23205506	TRANSISTOR, 2SC4081 Q
Q8312	23205506	TRANSISTOR, 2SC4081 Q
Q8390	23205506	TRANSISTOR, 2SC4081 Q
Q8391	23000823	IC, PHOTO COUPLER, TLP421F(GR)
Q8601	23205329	TRANSISTOR,RN1404(F)
Q8602	23205506	TRANSISTOR, 2SC4081 Q
Q8701	23205506	TRANSISTOR, 2SC4081 Q
Q8702	23205329	TRANSISTOR,RN1404(F)
Q8703	23205328	TRANSISTOR,RN1405(F)
Q8704	23085338	IC, BD5245G-TR
Q8801	23205329	TRANSISTOR,RN1404(F)
Q8802	23205329	TRANSISTOR,RN1404(F)
QB04	23205463	TRANSISTOR,2SC2712-Y(TE85L,F)
QB07	23205463	TRANSISTOR,2SC2712-Y(TE85L,F)
QD20	23085576	IC, OP AMP, BA4558F
QE01	23205313	TRANSISTOR,2SC1815-Y(F)
QE02	23205313	TRANSISTOR,2SC1815-Y(F)
QE03	23205315	TRANSISTOR,RN1206(F)
QE04	23205313	TRANSISTOR,2SC1815-Y(F)
QE10	23135077	IC, SI-3090CA
QE11	23205315	TRANSISTOR,RN1206(F)
QE25	23205340	TRANSISTOR,2SA1020-Y(F)
⚠ QE26	23205313	TRANSISTOR,2SC1815-Y(F)
QE40	23085381	IC, SI-8050SS
QE41	23205315	TRANSISTOR,RN1206(F)
QE42	23205318	TRANSISTOR,RN1203(F)
QE45	23085396	IC, SI-3033CA(LF1101)
QE60	23085381	IC, SI-8050SS
QE61	23205315	TRANSISTOR,RN1206(F)
QE65	23135076	IC, SI-3050C
QE66	23205315	TRANSISTOR,RN1206(F)
QE70	23135084	IC, MPD6S011S
QE71	23205324	TRANSISTOR,RN2004(F)
QE85	23205340	TRANSISTOR,2SA1020-Y(F)
QE86	23205313	TRANSISTOR,2SC1815-Y(F)
QE90	23085381	IC, SI-8050SS
QE91	23205313	TRANSISTOR,2SC1815-Y(F)
QE92	23205313	TRANSISTOR,2SC1815-Y(F)
QE93	23205315	TRANSISTOR,RN1206(F)
QE95	23205442	TRANSISTOR,2SC3852
QS01	23009916	IC, MM1631AJBE
QS03	23205302	TRANSISTOR,2SC3326-B(F)
QS04	23205302	TRANSISTOR,2SC3326-B(F)
QS05	23205325	TRANSISTOR,RN2404(F)
QS08	23205506	TRANSISTOR, 2SC4081 Q
QS09	23205506	TRANSISTOR, 2SC4081 Q
QS10	23205302	TRANSISTOR,2SC3326-B(F)
QS11	23205302	TRANSISTOR,2SC3326-B(F)
QS19	23205506	TRANSISTOR, 2SC4081 Q
QS102	23085576	IC, OP AMP, BA4558F
QV16	23085823	IC, 2IN-1OUTSW 6DBAMP CLP(PB F MM1508XNRE)
QV17	23205329	TRANSISTOR,RN1404(F)
QV22	23205507	TRANSISTOR, 2SA1576A Q
QV282	23085352	IC, M52055FP
QV283	23205329	TRANSISTOR,RN1404(F)
D670	23362140	DIODE,KDS160-RTK
D671	23362140	DIODE,KDS160-RTK
D674	23362140	DIODE,KDS160-RTK
D675	23362140	DIODE,KDS160-RTK
D676	23362140	DIODE,KDS160-RTK
D678	23362140	DIODE,KDS160-RTK
D679	23362140	DIODE,KDS160-RTK
D681	23362140	DIODE,KDS160-RTK
D809	76000656	VARISTOR,TNR15G471K
D811	23357636	DIODE, ZENER, RD6.8ESA B1

Location No.	Parts No.	Description
D815	23357692	DIODE, ZENER, RD2.0ESA B2
D816	23357738	DIODE, ZENER, MA8047-L
D819	23357718	THYRISTOR,SF0R3G42(N,G5H1)
D820	23357913	DIODE, RBV-1506, LF-A
D821	23362240	DIODE, VRM=1200V IF(AV)=3A FMC-26UAR
D822	23362220	DIODE, VRM=600V IF=5A FMX-G16S
D823	23362223	DIODE, VRM=600V IF=1.2A DO201AD :RM3A,LF014-102
D825	23357899	DIODE, ZENER, MTZJ33A
D826	23357513	DIODE, EU2A
D828	76000656	VARISTOR,TNR15G471K
D841	23362221	DIODE, VRM=1000V 1.0A EM1C,LF-F7
D842	23362221	DIODE, VRM=1000V 1.0A EM1C,LF-F7
D843	23357854	DIODE, ZENER, MTZJ10B
D844	23357837	DIODE, ZENER, MTZJ5.6B
D845	23357510	DIODE, AG01
D846	23357513	DIODE, EU2A
D860	23357850	DIODE, ZENER, MTZJ9.1A
D861	23357893	DIODE, ZENER, MTZJ27C
D862	23357893	DIODE, ZENER, MTZJ27C
D863	23357854	DIODE, ZENER, MTZJ10B
D864	23357854	DIODE, ZENER, MTZJ10B
D865	23357513	DIODE, EU2A
D866	23357853	DIODE, ZENER, MTZJ10A
D870	23362219	DIODE, VRM=100V IF=20A FME-220A(023-108)
D871	23362219	DIODE, VRM=100V IF=20A FME-220A(023-108)
D874	23362219	DIODE, VRM=100V IF=20A FME-220A(023-108)
D880	23357513	DIODE, EU2A
D881	23357104	DIODE, 1SS244
D882	23357104	DIODE, 1SS244
D883	23357837	DIODE, ZENER, MTZJ5.6B
D884	23362219	DIODE, VRM=100V IF=20A FME-220A(023-108)
D885	23357513	DIODE, EU2A
D886	23357408	DIODE, FMX-12S(023-108)
D887	23357900	DIODE, ZENER, MTZJ33B
D888	23357848	DIODE, ZENER, MTZJ8.2B
D889	23357848	DIODE, ZENER, MTZJ8.2B
D890	23357847	DIODE, ZENER, MTZJ8.2A
D891	23357847	DIODE, ZENER, MTZJ8.2A
D892	23357892	DIODE, ZENER, MTZJ27B
D8230	23357792	DIODE, ZENER 22.80-23.97 MA8240-L, TX
D8231	23357703	DIODE, 1SS355
D8232	23357745	DIODE, ZENER, MA8056-M
D8271	23357697	DIODE, 1SS133
D8272	23357910	DIODE, ZENER, MTZJ39D
D8273	23357883	DIODE, ZENER, MTZJ22A
D8274	23357883	DIODE, ZENER, MTZJ22A
D8310	23357703	DIODE, 1SS355
D8311	23357745	DIODE, ZENER, MA8056-M
D8312	23357703	DIODE, 1SS355
D8313	23357762	DIODE, ZENER, MA8091-M
D8390	23357889	DIODE, ZENER, MTZJ24C
D8391	23357890	DIODE, ZENER, MTZJ24D
D8401	23357703	DIODE, 1SS355
D8402	23357703	DIODE, 1SS355
D8403	23357703	DIODE, 1SS355
D8404	23357703	DIODE, 1SS355
D8601	23357703	DIODE, 1SS355
D8602	23357731	DIODE, ZENER, MA8033-H
D8701	23357703	DIODE, 1SS355
D8702	23357703	DIODE, 1SS355
D8705	23357894	DIODE, ZENER, MTZJ27D
D8706	23357703	DIODE, 1SS355
D8801	23357703	DIODE, 1SS355
D8802	23357703	DIODE, 1SS355
D8803	23357778	DIODE, ZENER, MA8150-M
D8804	23357703	DIODE, 1SS355

Location No.	Parts No.	Description
D8805	23357745	DIODE, ZENER, MA8056-M
DA11	23362042	DIODE, ZENER, UDZS6.8B
DA12	23362042	DIODE, ZENER, UDZS6.8B
DA13	23362042	DIODE, ZENER, UDZS6.8B
DA14	23362042	DIODE, ZENER, UDZS6.8B
DA15	23362042	DIODE, ZENER, UDZS6.8B
DB01	23358606	DIODE, LED RED, SLR-56VC3FPQ
DB04	23358605	DIODE, LED GREEN, SLR-56MC3FPQR
DB20	23357406	DIODE, ZENER, UDZS5.6B
DB22	23357703	DIODE, 1SS355
DB23	23357703	DIODE, 1SS355
DD81	23357745	DIODE, ZENER, MA8056-M
DE01	23357706	DIODE, AK04
DE02	23357706	DIODE, AK04
DE03	23357823	DIODE, ZENER, MTZJ3.6A
DE04	23357821	DIODE, ZENER, MTZJ3.3A
DE05	23357499	DIODE, ERB12-01
DE06	23357697	DIODE, 1SS133
DE07	23357821	DIODE, ZENER, MTZJ3.3A
DE08	23357499	DIODE, ERB12-01
DE09	23357697	DIODE, 1SS133
DE40	23357810	DIODE, FMB-G14L
DE41	23357697	DIODE, 1SS133
DE42	23357912	DIODE, ZENER, MTZJ6.2C
DE60	23357810	DIODE, FMB-G14L
DE61	23357697	DIODE, 1SS133
DE62	23357845	DIODE, ZENER, MTZJ7.5B
DE71	23357697	DIODE, 1SS133
DE72	23357829	DIODE, ZENER, MTZJ4.3C
DE74	23357697	DIODE, 1SS133
DE90	23357810	DIODE, FMB-G14L
DE91	23357697	DIODE, 1SS133
DE92	23357912	DIODE, ZENER, MTZJ6.2C
DE97	23357895	DIODE, ZENER, MTZJ30A
DE99	23357840	DIODE, ZENER, MTZJ6.2B
DR01	23357765	DIODE, ZENER, MA8100-M
DR02	23357765	DIODE, ZENER, MA8100-M
DR03	23357765	DIODE, ZENER, MA8100-M

MISCELLANEOUS

⚠ B001	23301659	DISPLAY, G5SHP37 LQ370T3LZ41
B310	23717219	SCREW, PP3X8+SW+W SBN
B313	23717306	SCREW WITH WASHER
B375	23717214	SCREW, BITTB3X12SBN
B401	23717225	SCREW, PP4X20+SW+W SBN
⚠ BD01	23771573	DVD-LOADER, RL-SL2003 RL-SL2003
D820B	23717240	SCREW
D821B	23717240	SCREW
D822B	23717240	SCREW
D870B	23717240	SCREW
D871B	23717240	SCREW
D874B	23717240	SCREW
D884B	23717240	SCREW
D886B	23717240	SCREW
E871B	23960136	ADHESIVE, SILICONE, TSE3843-W
⚠ F801	23144406	FUSE, CERA 5X20 250V 6.3A
F801A	23165433	FUSE HOLDER, 5.2
F801B	23165433	FUSE HOLDER, 5.2
F820	23144378	FUSE, RADIAL LEAD SUB-MINIATUR 250V 2A
F870	23144378	FUSE, RADIAL LEAD SUB-MINIATUR 250V 2A
GJ413	76000445	CHIP JUMPER, 1608TYPE
GJ414	76000445	CHIP JUMPER, 1608TYPE
GR02	76000445	CHIP JUMPER, 1608TYPE
GR03	76000445	CHIP JUMPER, 1608TYPE
GR04	76000445	CHIP JUMPER, 1608TYPE
GR05	76000445	CHIP JUMPER, 1608TYPE

Location No.	Parts No.	Description
GR110	76000445	CHIP JUMPER, 1608TYPE
GR112	76000445	CHIP JUMPER, 1608TYPE
GR113	76000445	CHIP JUMPER, 1608TYPE
GR150	76000445	CHIP JUMPER, 1608TYPE
GRV55	76000445	CHIP JUMPER, 1608TYPE
GRV56	76000445	CHIP JUMPER, 1608TYPE
GRV57	76000445	CHIP JUMPER, 1608TYPE
H003	23344525	SWITCH, 2I3O BUNPAI US DIG RSU143
H003A	23368943	CABLE, PH0NO 350MM JLC YAF11-1194N
H003B	23368943	CABLE, PH0NO 350MM JLC YAF11-1194N
H003C	23747055	NUT, F-CONNECTOR 2H BS
H003D	23748092	WASHER, WASHER 14.2X9.6X2
H003E	23748093	WASHER, WASHER WAVE15X10.6X0.2
K903	23306644	REMOCON IR, IR BLASTER G-LINK VTR CONT
KB01	23009710	REMOCON RECEIVER, GP1UE281RK
MJ22	23389359	CABLE, FFC 0.5 50P L70 GOLD
MJ60	23389359	CABLE, FFC 0.5 50P L70 GOLD
MV97	23389343	FFC, 20706SFWR-P=1.0-L1-13-262 P1.00-13P-270B(WR)
MZ01	23368908	CABLE, LVDS30P170MM SHP T2 E30-X30
P602A	23713937	CONNECTOR, PLUG 4P B4B-PH-K-S(LF)
P602B	23713946	CONNECTOR, PLUG 4P S4B-PH-K-S(LF)
P661	23023302	EARPHONE JACK
P801	23372264	POWER CORD, U/C 125V10A HSV 5 CMC-02P 11111
P801A	23713702	PLUG, 2P 11.88MM W VT
P802A	23757043	CONNECTOR, PLUG JST-VT B02B-VT-K(LF)(SN)
P802B	23757043	CONNECTOR, PLUG JST-VT B02B-VT-K(LF)(SN)
⚠ P803A	23713762	PLUG, NP 2.5MM G, B11B-EH-F1A
⚠ P803B	23713762	PLUG, NP 2.5MM G, B11B-EH-F1A
P804A	23713761	PLUG, NP 2.5MM G, B10B-EH-F1A
P804B	23713761	PLUG, NP 2.5MM G, B10B-EH-F1A
P805A	23713763	PLUG, NP 2.5MM G, B12B-EH-F1A
P805B	23713763	PLUG, NP 2.5MM G, B12B-EH-F1A
P807A	23713764	PLUG, 13P
P807B	23713764	PLUG, 13P
P809A	23713763	PLUG, NP 2.5MM G, B12B-EH-F1A
P809B	23713763	PLUG, NP 2.5MM G, B12B-EH-F1A
P860	23713942	CONNECTOR, CONNECT B10B-PH-K-S(LF)
P861	23713942	CONNECTOR, CONNECT B10B-PH-K-S(LF)
PD02A	23713940	CONNECTOR, CONNECT B8B-PH-K-S(LF)
PD03A	23713944	CONNECTOR, CONNECT B12B-PH-K-S(LF)
PD05A	23757006	CONNECTOR, 20P TOPTYPE B20B-PHDSS(LF)
PG01	23165495	TERMINAL, EARTH PHI3 MET31-0332
PG03	23165495	TERMINAL, EARTH PHI3 MET31-0332
PJ21A	23713934	CONNECTOR, 2MM 3P S WHT B3B-PH-K-S(LF)
PJ22A	23757176	CONNECTOR, IRS 9637S-50Y902 GLD
PJ40A	23757001	CONNECTOR, 10P TOPTYPE B10B-PHDSS(LF)
PJ41A	23713943	CONNECTOR, CONNECT B11B-PH-K-S(LF)
PJ43	23713946	CONNECTOR, PLUG 4P S4B-PH-K-S(LF)
PJ43A	23713946	CONNECTOR, PLUG 4P S4B-PH-K-S(LF)
PJ60A	23757176	CONNECTOR, IRS 9637S-50Y902 GLD
⚠ PJ62A	23713910	CONNECTOR, CONNECTOR B5P-VH(LF)
⚠ PJ63A	23713756	PLUG, 5P 2.5MM G, B5B-EH-F1-TV4
PP02	23974994	BAND, KESSOKU
PP08	23974994	BAND, KESSOKU
PP12	23974994	BAND, KESSOKU
PS15	23023302	EARPHONE JACK
PV11	23023424	JACK, PIN RA 1S6P SMK T-5P
PV12	23023425	JACK, PIN RA 5P SMK T-7P
PV13	23023425	JACK, PIN RA 5P SMK T-7P
PV14	23023426	JACK, PIN RA 5P SMK T-7P
PV15	23023419	JACK, PIN RA RESERVE T-2P
PV25B	23713949	CONNECTOR, CONNECT S7B-PH-K-S(LF)
PV60	23365275	JACK, PHONO 3P V-L-R YKC21
PV90	23713710	SOCKET, D-SUB 15P, KRD-8622
PV97A	23757057	CONNECTOR, 13FMN-BTK-A(LF)(SN)
PV97B	23757057	CONNECTOR, 13FMN-BTK-A(LF)(SN)

Location No.	Parts No.	Description
Q670B	23717240	SCREW
Q820B	23717240	SCREW
Q880B	23717240	SCREW
QE10B	23717240	SCREW
QE40B	23717240	SCREW
QE45B	23717240	SCREW
QE60B	23717240	SCREW
QE90B	23717240	SCREW
QE95B	23717240	SCREW
SA01	23344505	SWITCH, PUSH 1C1P
SA02	23344505	SWITCH, PUSH 1C1P
SA03	23344505	SWITCH, PUSH 1C1P
SA04	23344505	SWITCH, PUSH 1C1P
SA05	23344505	SWITCH, PUSH 1C1P
SA06	23344505	SWITCH, PUSH 1C1P
SA07	23344505	SWITCH, PUSH 1C1P
SA08	23344505	SWITCH, PUSH 1C1P
SA11	23344505	SWITCH, PUSH 1C1P
SA12	23344505	SWITCH, PUSH 1C1P
SA13	23344505	SWITCH, PUSH 1C1P
SA14	23344505	SWITCH, PUSH 1C1P
SA15	23344505	SWITCH, PUSH 1C1P
SR80	23146588	RELAY, DLS5D1-O(M) 0.15W
⚠ SR81	23146584	RELAY, DC12V, TV5, DG-3
UF01	23125932	MOTOR, DCFAN 12V 60MM 150, D06R-12SL11B
⚠ UF03	23125942	MOTOR, DCFAN12V60MMPOD D06R-12TS1002BC2
W661	23351321	SPEAKER, ASSY, 6X12+TW 8-OHM 10 SPK-1469AO
ZA01	23103778	FERRITE CORE, TFE1008
ZA02	23103778	FERRITE CORE, TFE1008
ZA03	23103840	FERRITE CORE, TFE1013

PC BOARD ASSEMBLIES

✻ U101	75005694	PC BOARD ASSY, PD2222A1 SIGNAL DVD-LCD
✻ U102	75001577	PC BOARD ASSY, PD2266F1 SEINE FOR FPD
✻ U103	75001699	PC BOARD ASSY, PD2301A1 D-TUNER
✻ U104A	75001579	PC BOARD ASSY, PD2219A1 TN/AV-AOUT
✻ U104B	75001580	PC BOARD ASSY, PD2219A2 FRONT AV
✻ U104C	75001581	PC BOARD ASSY, PD2219A3 LED-RMT
✻ U104D	75001582	PC BOARD ASSY, PD2219A4 KEY-SW
✻ U104E	75001583	PC BOARD ASSY, PD2219A5 PC-IN
✻ U104F	75001584	PC BOARD ASSY, PD2219A6 DVD-KEY
✻ U801	75001585	PC BOARD ASSY, PD2171C1 POWER
✻ U802	75001586	PC BOARD ASSY, PD2171C2 AC-IN
✻ U803	75001578	PC BOARD ASSY, PD2189B1 LOWB

TUNER

⚠ H001	23321536	TUNER, TIF US HOR IIC PH 864M ENG36A36GF

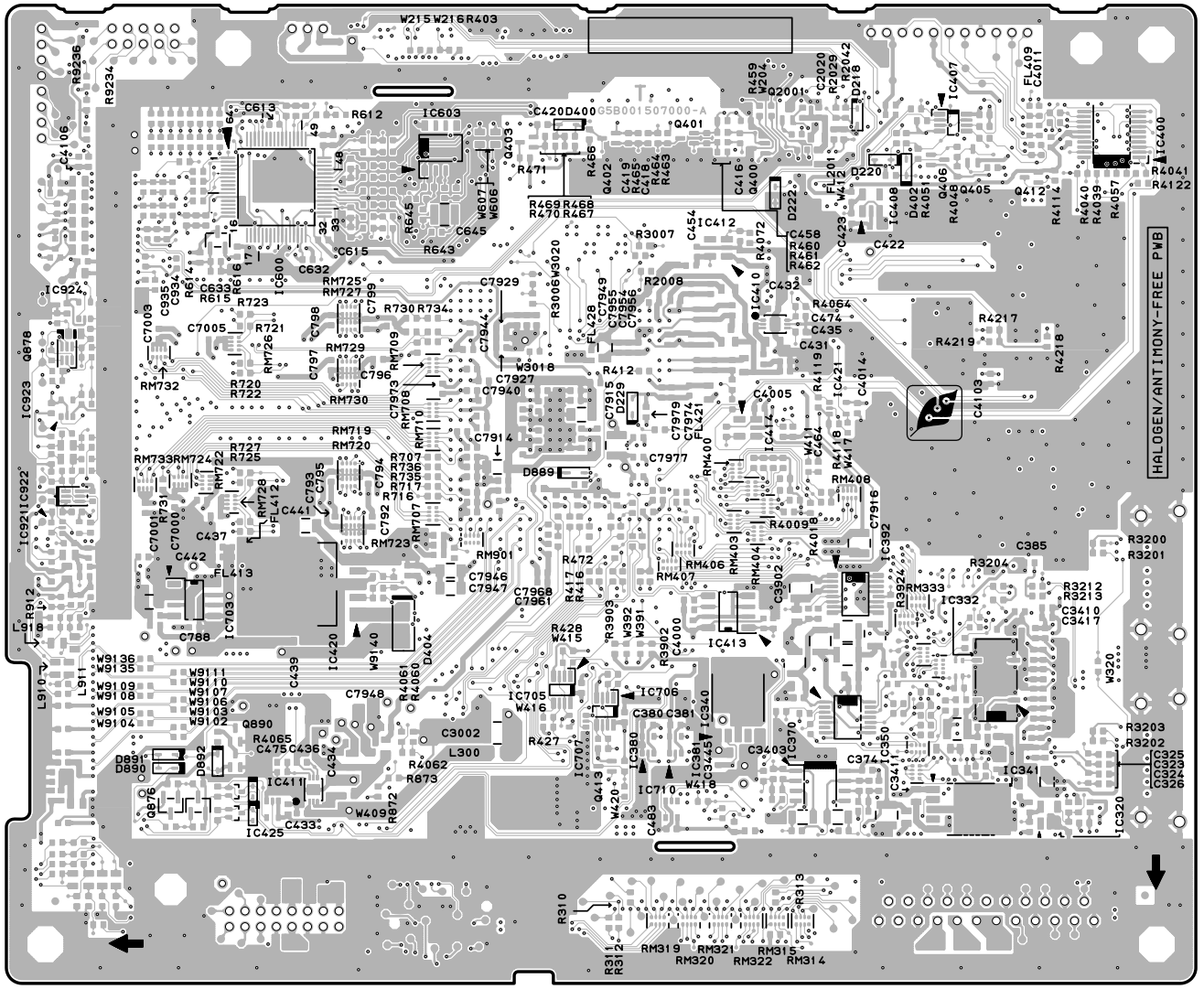
ACCESSORIES

A701A	23015193	CARTON, TOP CASE 37HLX95
A701B	23015194	CARTON, BOTTOM CASE 37HLX95
A702A	23580052	PACKING, TOP PACKING 37HLX95
A702B	23580053	PACKING, BOTTOM PACKING 37HLX95
A705	23518043	PACKING, JOINT
A709	23946940	PACKING, CENTER PACKING
⚠ K902	23306630	REMOCON HAND UNIT IR, CTVUSA CT-90236
⚠ Y101	23566698	OWNERS MANUAL, ENG/FRE/SPA
Y170	23845800	HOLDER, WIRE, NYLON66 D6.8

Location No.	Parts No.	Description
CABINET PARTS		
⚠ A201	23533487	COVER, FRONT BEZEL ASSY 37HLX95
⚠ A315	23533551	COVER, BACK CENTER COVER 37HLX95
⚠ A320	23940490	PIECE, FRONT AV ASSY
⚠ A340	23940497	PIECE, CONTROL HOLDER ASSY
A370	23717267	SCREW, BITTB4X16 SBN
A385	23717219	SCREW, PP3X8+SW+W SBN
⚠ A401	23533489	COVER, BACK COVER ASSY 37HLX95
A410	23717219	SCREW, PP3X8+SW+W SBN
A411	23717267	SCREW, BITTB4X16 SBN
A412	23717214	SCREW, BITTB3X12SBN
A420	23436882	FOOT, STAND ASSY
A440	23738074	SCREW, PP 5X16 SW+W SBN
⚠ A445	23533492	COVER, BC BOTTOM COVER 37HLX95
⚠ A450	23533491	COVER, BC SIDE COVER 37HLX95
A540	23717219	SCREW, PP3X8+SW+W SBN
A541	23533484	COVER, DVD CONTROL ASSY 37HLX95
A545	23940499	PIECE, PIECE DVD CASE BTM

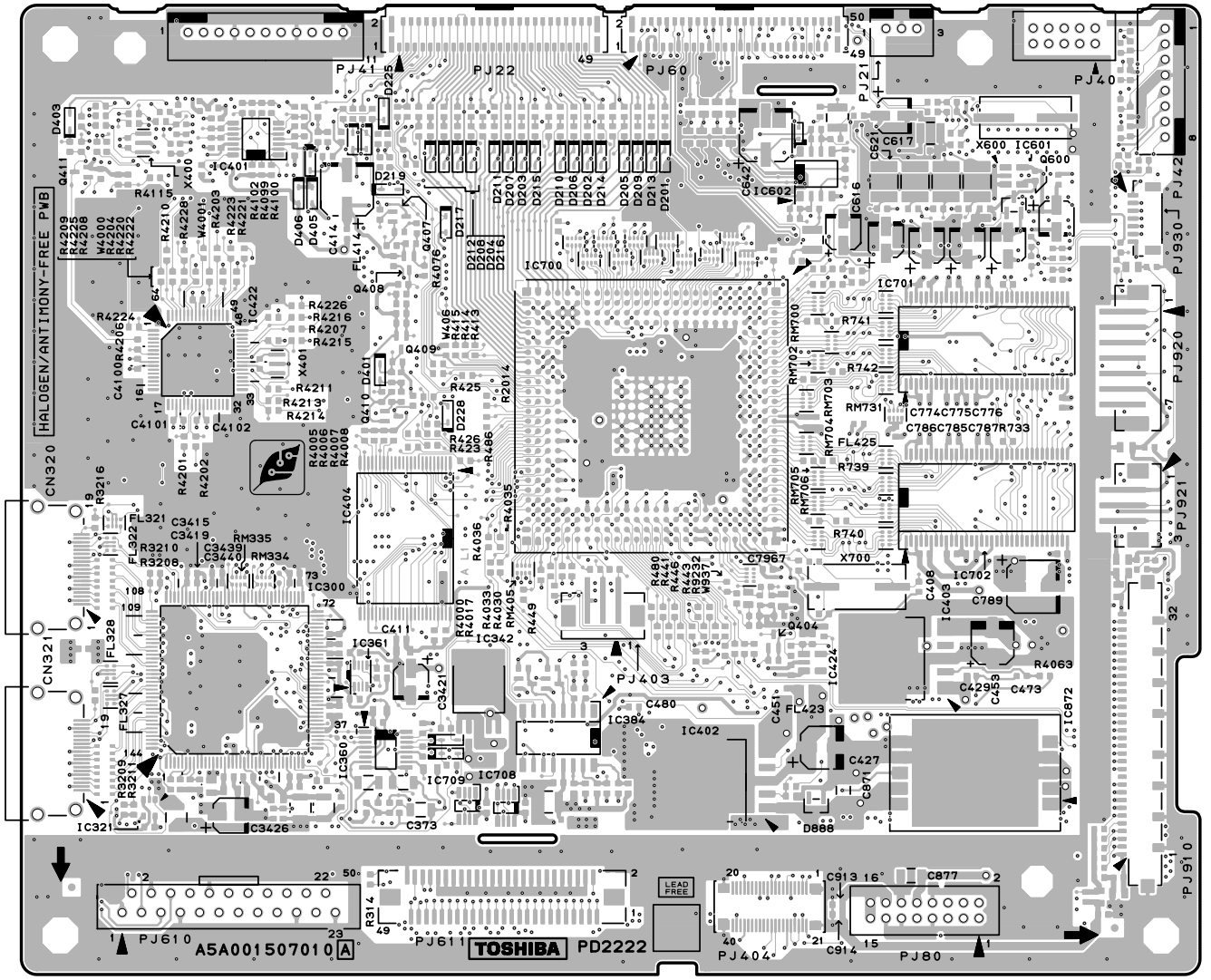
SIGNAL DVD-LCD BOARD PD2222A1 (U101)

BOTTOM (FOIL) SIDE



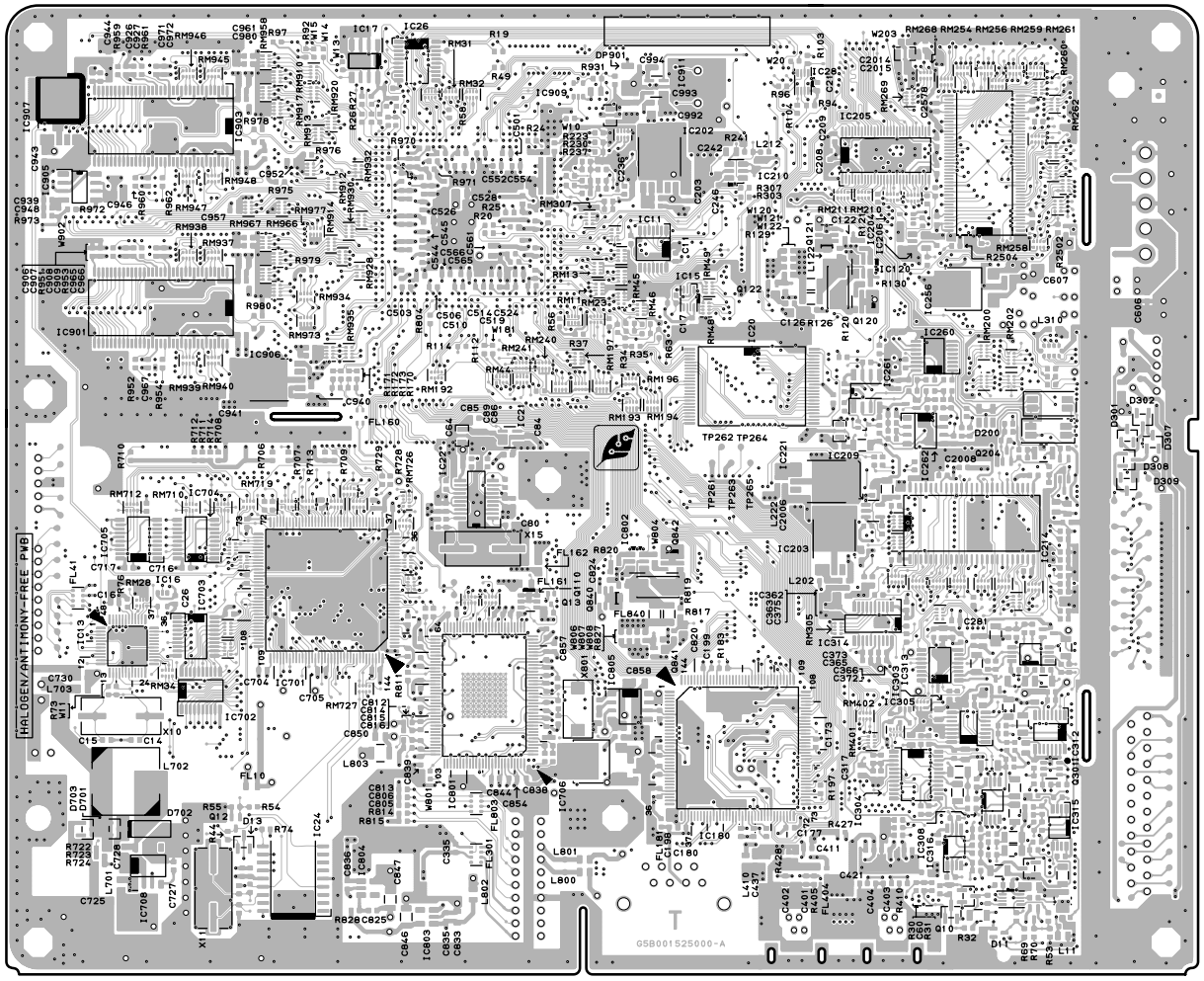
SIGNAL DVD-LCD BOARD PD2222A1 (U101)

TOP (COMPONENT) SIDE



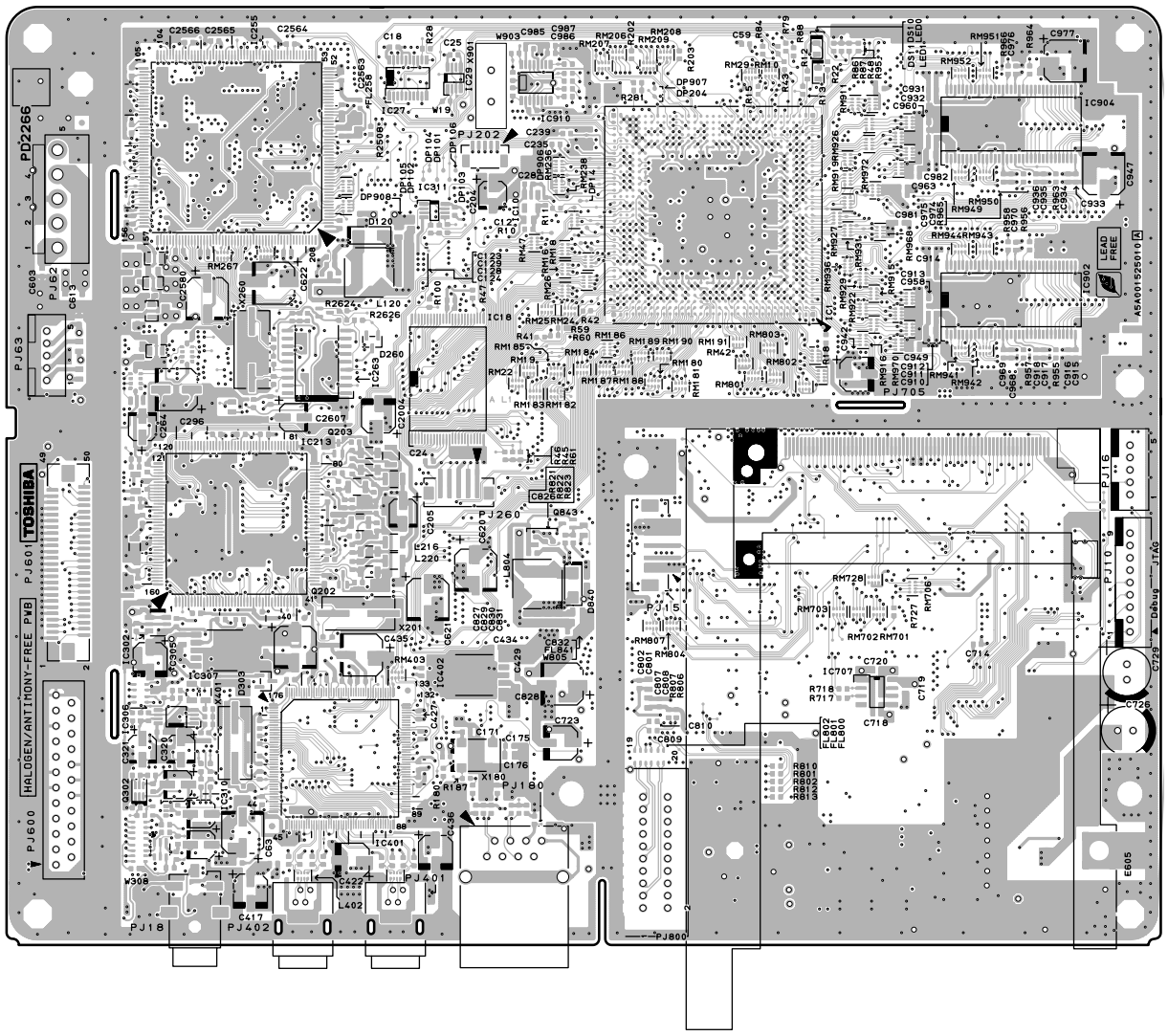
SEINE FOR FPD BOARD PD2266F1 (U102)

BOTTOM (FOIL) SIDE



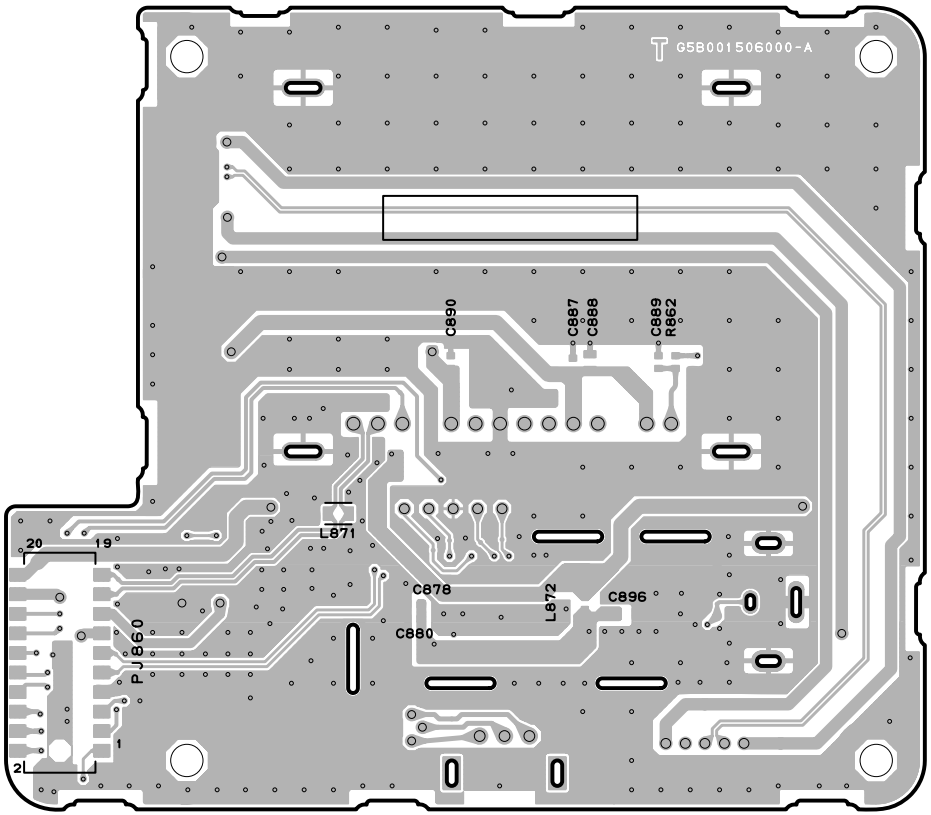
SEINE FOR FPD BOARD PD2266F1 (U102)

TOP (COMPONENT) SIDE



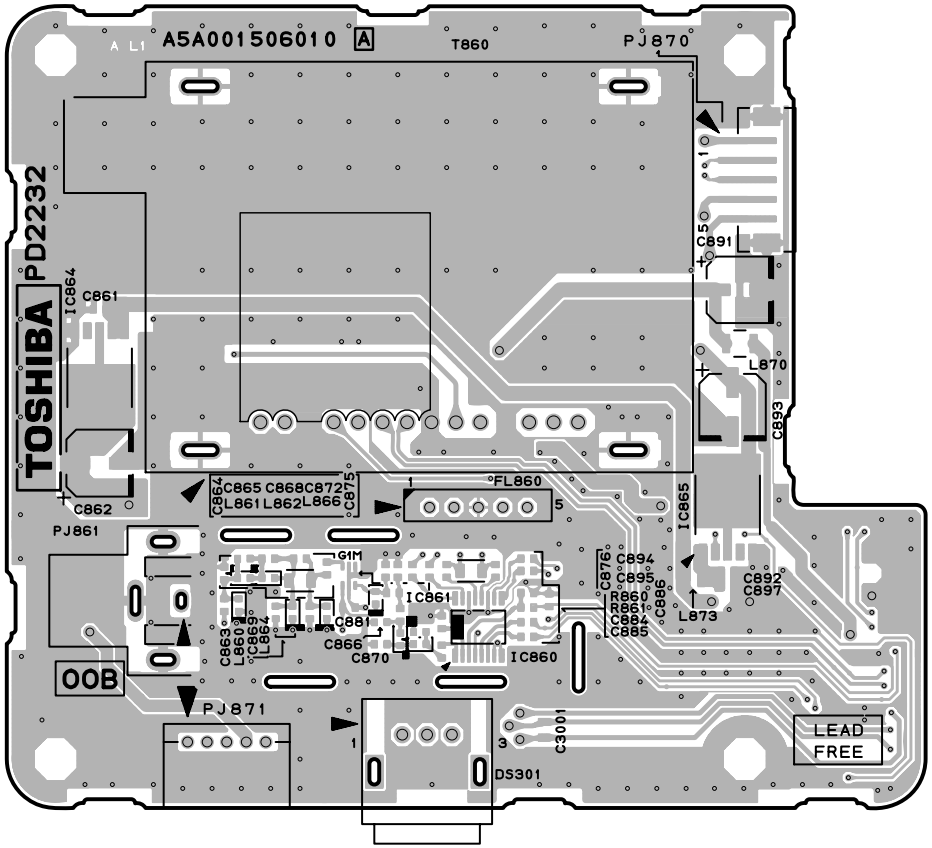
D-TUNER BOARD PD2301A1 (U103)

BOTTOM (FOIL) SIDE

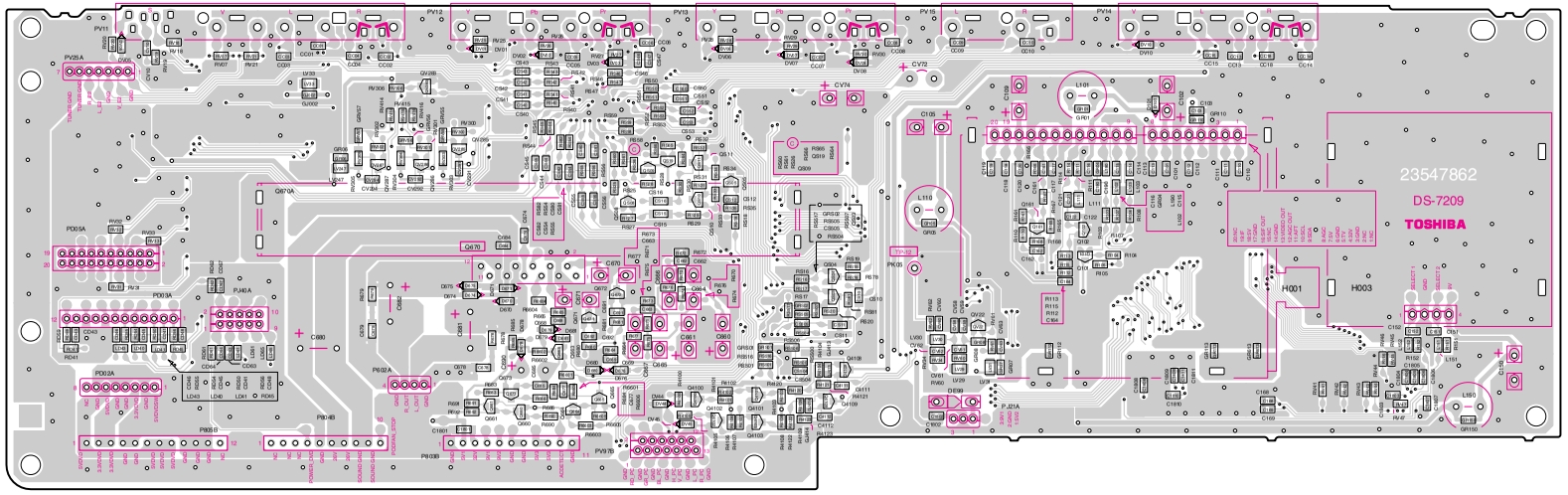


D-TUNER BOARD PD2301A1 (U103)

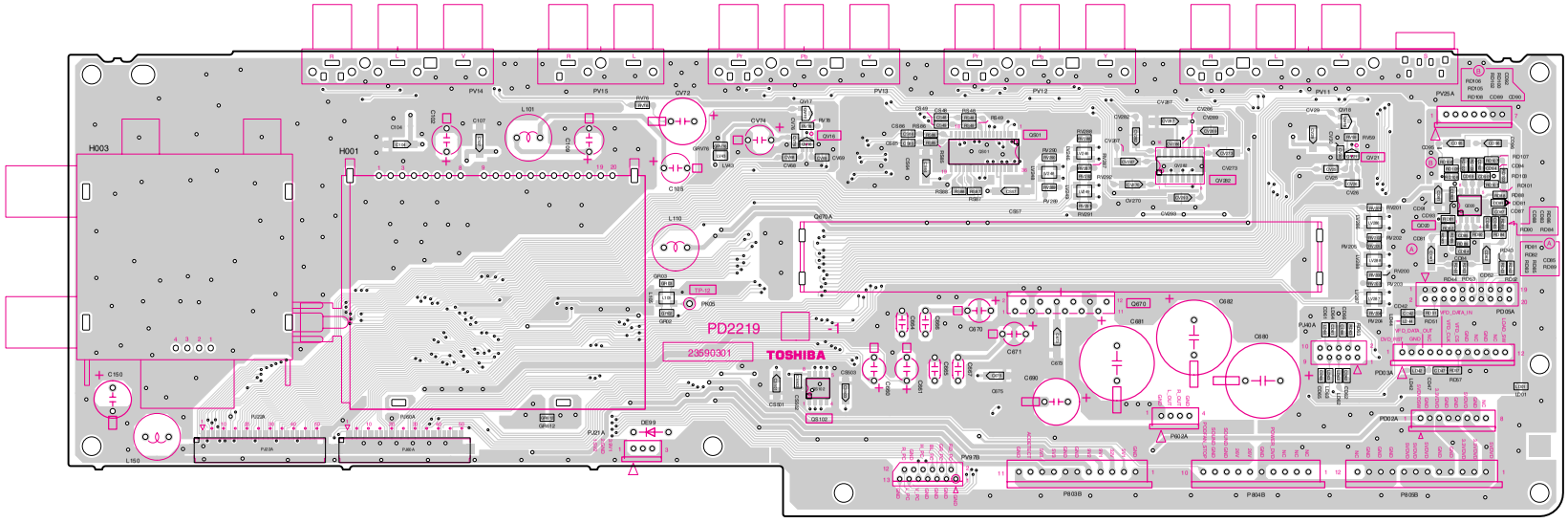
TOP (COMPONENT) SIDE



TN/AV-AOUT BOARD PD2219A1 (U104A) BOTTOM (FOIL) SIDE

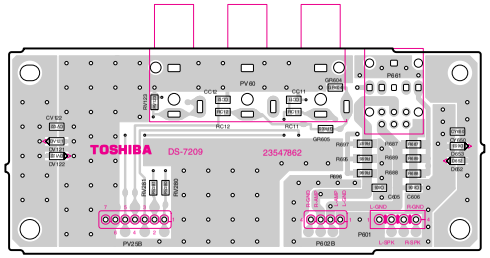


TN/AV-AOUT BOARD PD2219A1 (U104A) TOP (COMPONENT) SIDE



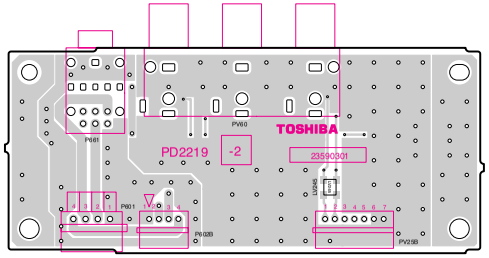
FRONT AV BOARD PD2219A2 (U104B)

BOTTOM (FOIL) SIDE



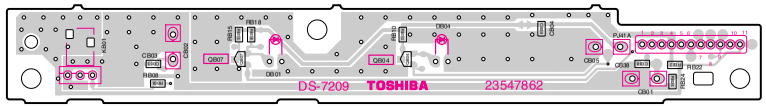
FRONT AV BOARD PD2219A2 (U104B)

TOP (COMPONENT) SIDE



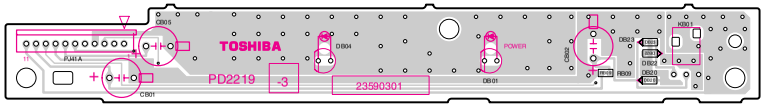
LED-RMT BOARD PD2219A3 (U104C)

BOTTOM (FOIL) SIDE



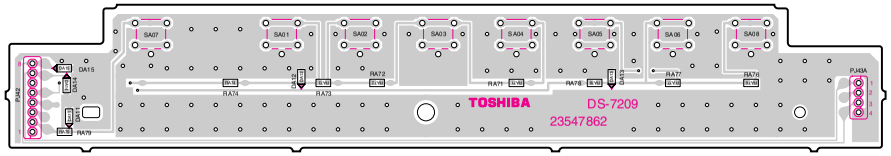
LED-RMT BOARD PD2219A3 (U104C)

TOP (COMPONENT) SIDE



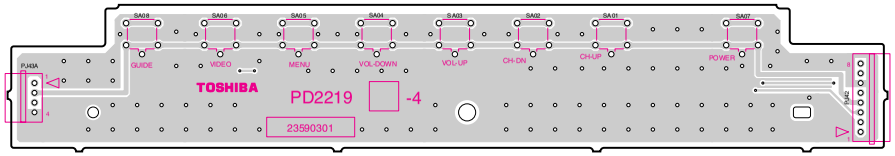
KEY-SW BOARD PD2219A4 (U104D)

BOTTOM (FOIL) SIDE



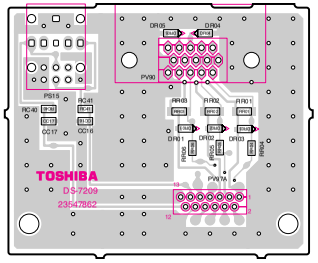
KEY-SW BOARD PD2219A4 (U104D)

TOP (COMPONENT) SIDE



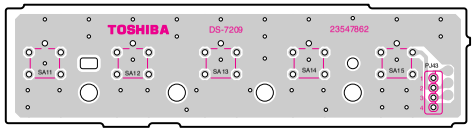
PC-IN BOARD PD2219A5 (U104E)

BOTTOM (FOIL) SIDE



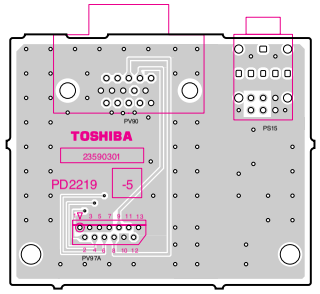
DVD-KEY BOARD PD2219A6 (U104F)

BOTTOM (FOIL) SIDE



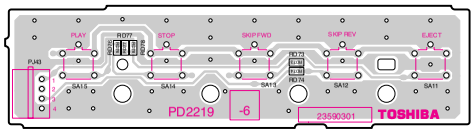
PC-IN BOARD PD2219A5 (U104E)

TOP (COMPONENT) SIDE



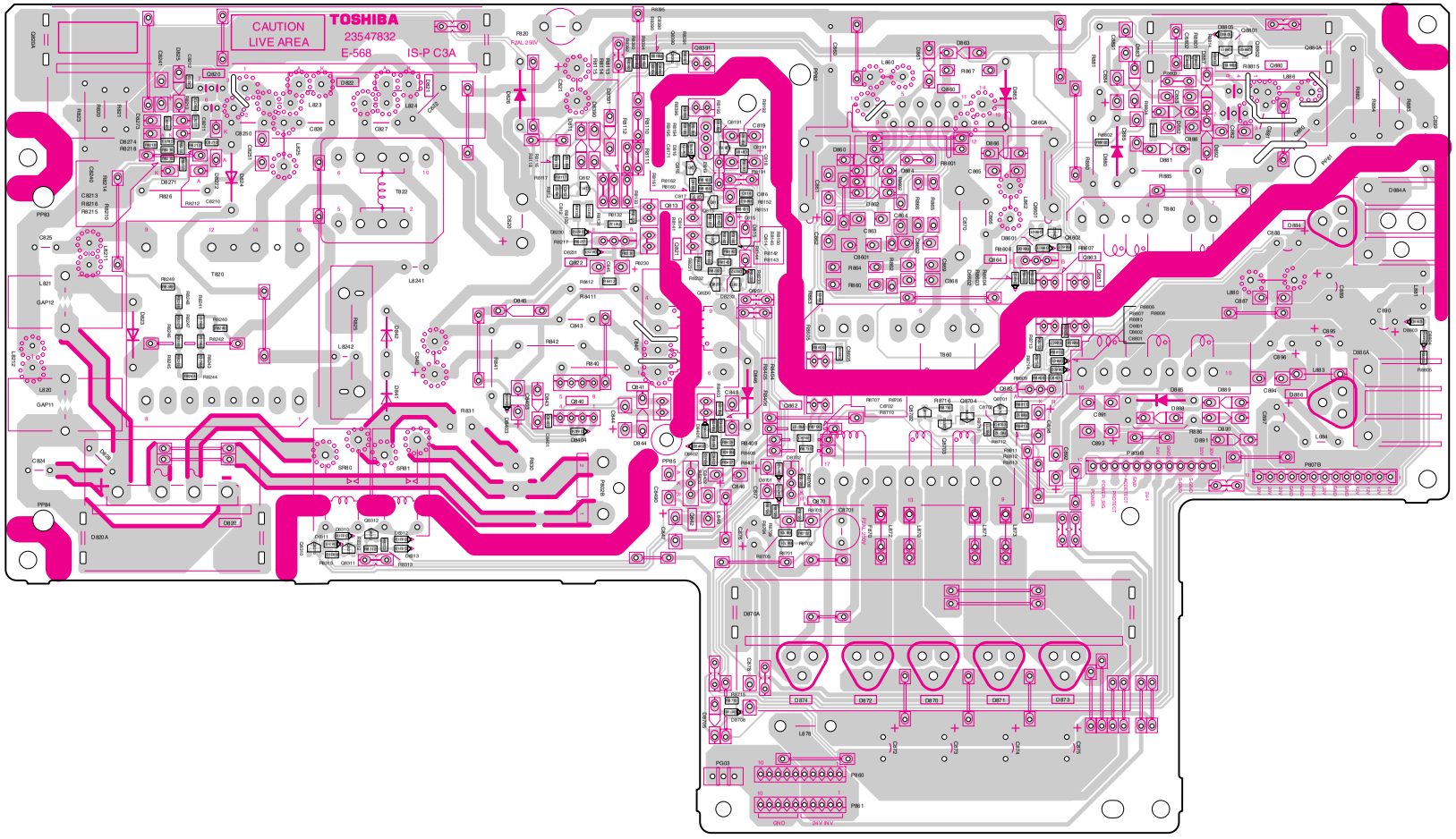
DVD-KEY BOARD PD2219A6 (U104F)

TOP (COMPONENT) SIDE

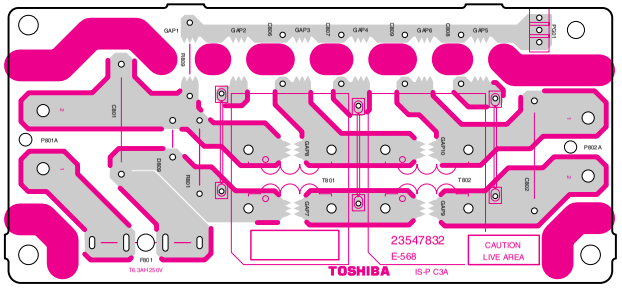


POWER BOARD PD2171C1 (U801)

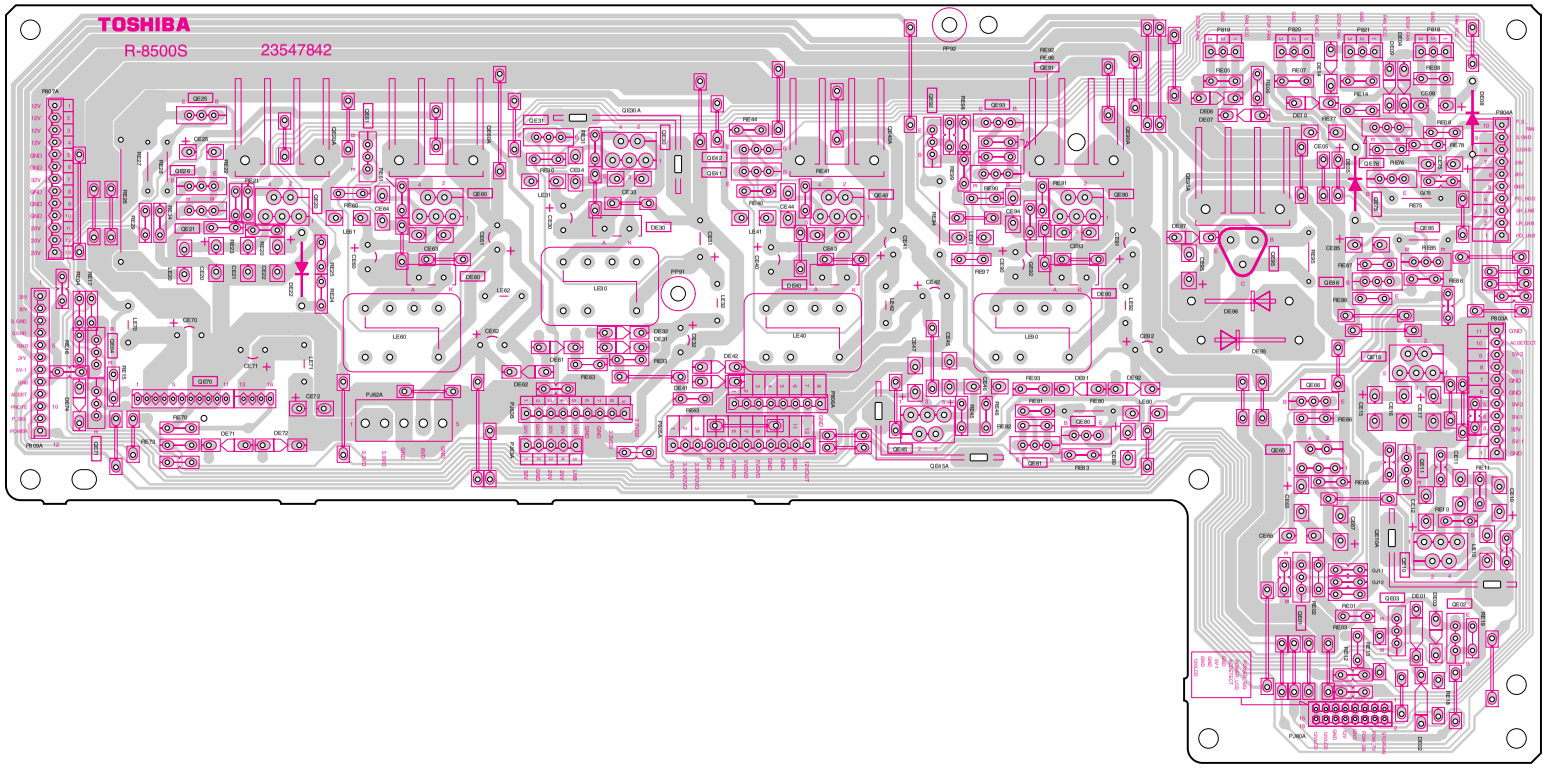
BOTTOM (FOIL) SIDE



AC-IN BOARD PD2171C2 (U802) BOTTOM (FOIL) SIDE



LOWB BOARD PD2189B1 (U803) BOTTOM (FOIL) SIDE



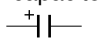
SCHEMATIC DIAGRAM

MODEL : 37HLX95

WARNING : BEFORE SERVICING THIS CHASSIS, READ THE "SERVICE SAFETY PRECAUTIONS" ON PAGE 3 OF THIS MANUAL.

CAUTION : The international hazard symbols "⚠" in the schematic diagram and the parts list designate components which have special characteristics important for safety and should be replaced only with types identical to those in the original circuit or specified in the parts list. The mounting position of replacements is to be identical with originals. Before replacing any of these components, read carefully the SERVICE SAFETY PRECAUTIONS on the MANUAL for this model. Do not degrade the safety of the receiver through improper servicing.

NOTE:

1. RESISTOR Resistance is shown in ohm [K = 1.000, M = 1.000.000]. All resistors are 1/6W and 5% tolerance carbon resistor, unless otherwise noted as the following marks.
   1/2R = Metal or Metal oxide of 1/2 watt 1/2S = Carbon compsistion of 1/2 watt
   1RF = Fuse resistor of 1 watt 10W = Cement of 10 watt
   K = ±10% G = ±2% F = ±1%
2. CAPACITOR Unless otherwise noted in schematic, all capacitor values less than 1 are expressed in μF, and the values more than 1 in pF.
   All capacitors are ceramic 50V, unless otherwise noted as the following marks.
    Electolytic capacitor Mylar capacitor
3. The parts indicated with " ⚠ " have special characteristics, and should be replaced with identical parts only.
4. Voltages read with DIGITAL MULTI-METER from point indicated to chassing ground, using a color bar signal with all controls at normal, line voltage 220 volts.
5. Waveforms are taken receiving color bar signal with enough sensitivity.
6. Voltage reading shown are nominal values and may vary ±20% except H.V.

■ **SCHEMATIC DIAGRAM STRUCTURE:**

TN/AV A-OUT
- CONNECTOR [SHEET-1/7] 1/134
- AV TERMINAL [SHEET-2/7] 2/134
- RF-SW & TIF [SHEET-3/7] 3/134
- A-OUT [SHEET-4/7] 4/134
- VIDEO-SW [SHEET-5/7] 5/134
- AUDIO-SW [SHEET-6/7] 6/134
- DVD OP AMP [SHEET-7/7] 7/134

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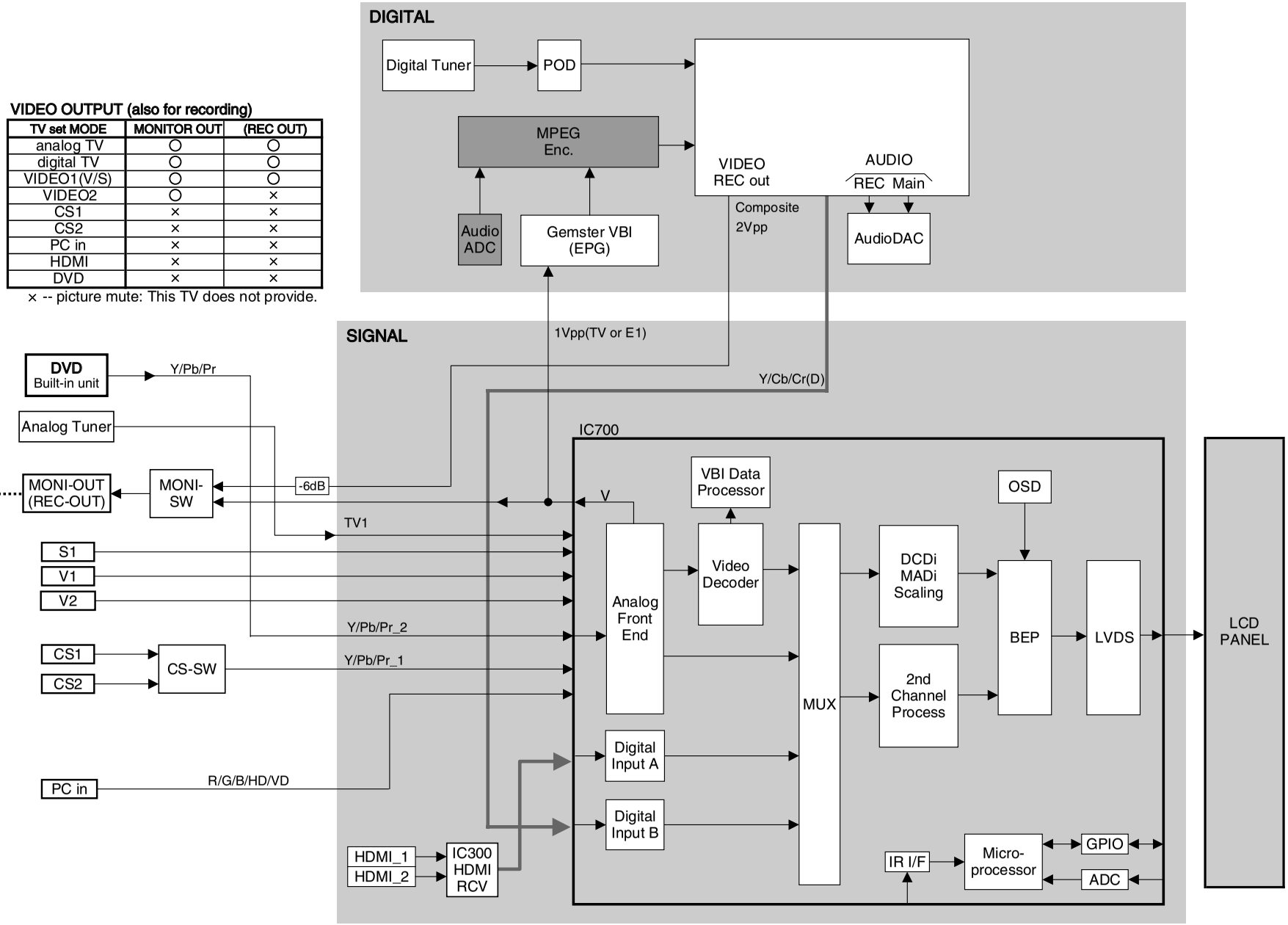
CIRCUIT BLOCK DIAGRAM



TOSHIBA CORPORATION
1-1, SHIBAURA 1-CHOME, MINATO-KU, TOKYO 105-8001, JAPAN

TOSHIBA

FILE NO. 020-200519

CIRCUIT DIAGRAMS

LCD Color Television

37HLX95

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DOCUMENT CREATED IN JAPAN, Sept., 2005

SCHEMATIC DIAGRAM

MODEL : 37HLX95

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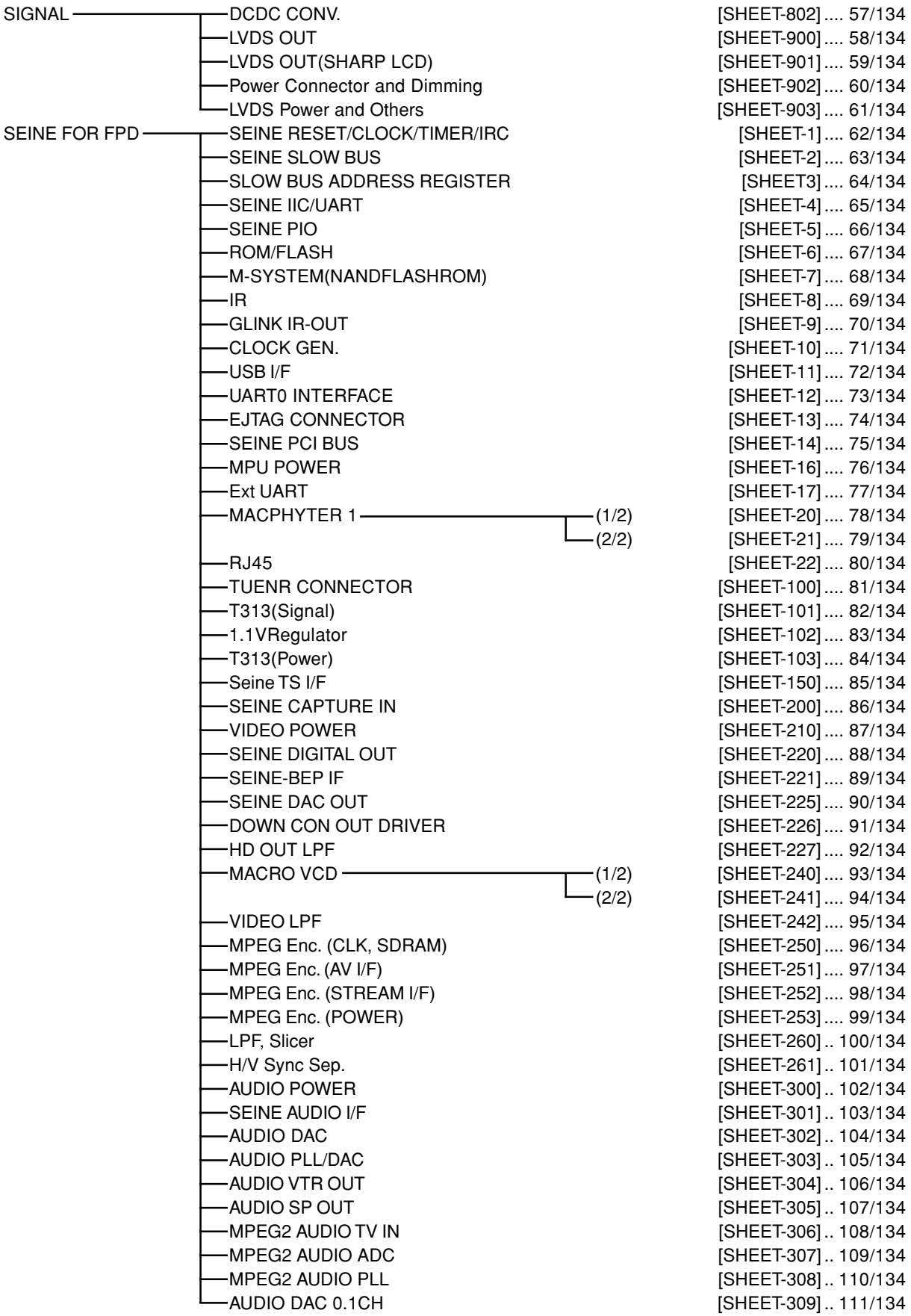
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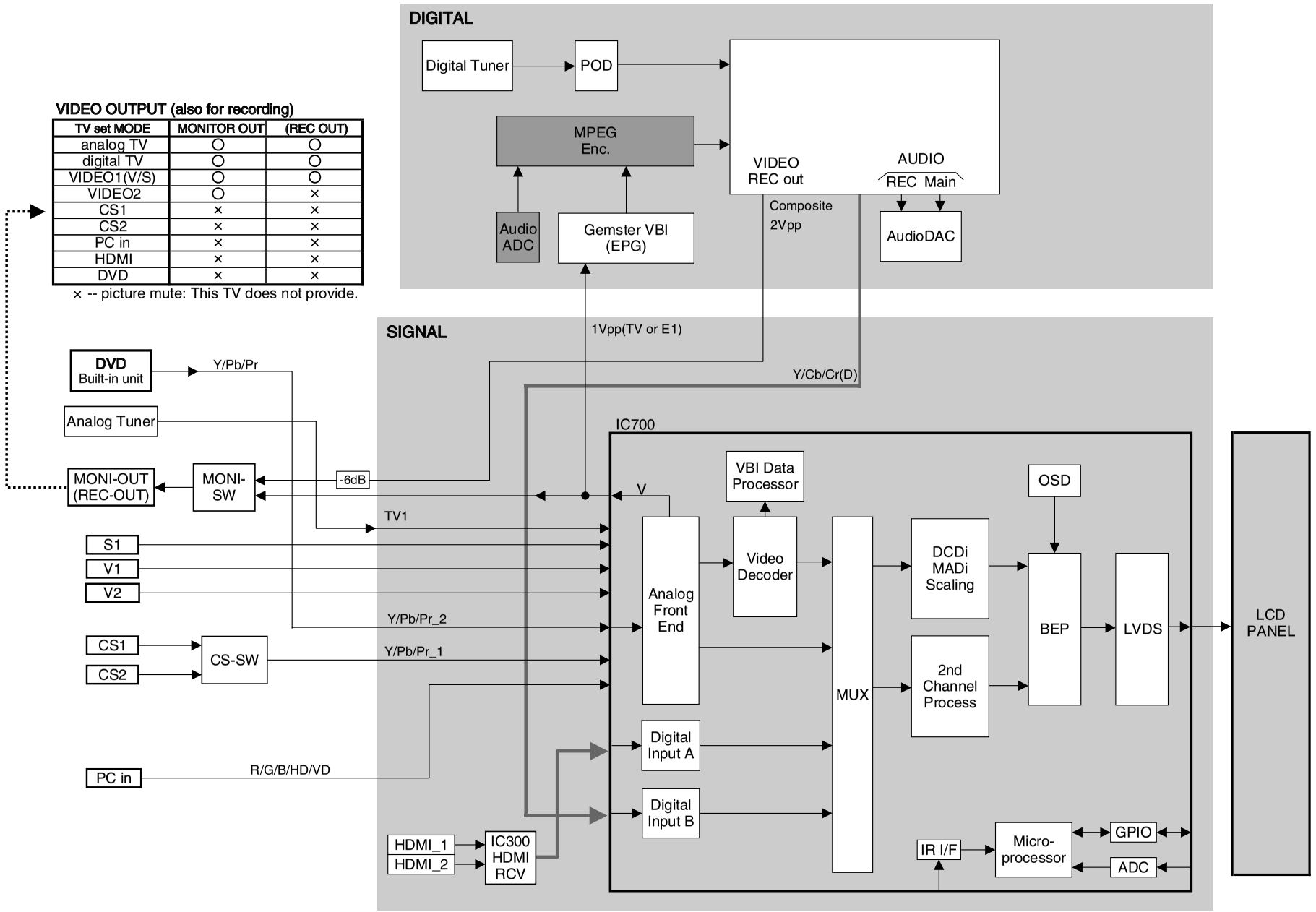
	DDR SDRAM I/F	[SHEET-901] .. 120/134
	DDR 1	[SHEET-902] .. 121/134
	DDR 2	[SHEET-903] .. 122/134
	DDR 3	[SHEET-904] .. 123/134
	DDR 4	[SHEET-905] .. 124/134
	DDR POWER	[SHEET-906] .. 125/134
	TERMINATOR	[SHEET-907] .. 126/134
	VCXO	[SHEET-941] .. 127/134
	SEINE VDD/VSS	[SHEET-950] .. 128/134
	SIGNAL CONNECTOR	[SHEET-960] .. 129/134
	POWER CONNECTOR	[SHEET-961] .. 130/134
	Signal filter	[SHEET-964] .. 131/134
D-TUNER	TUNER CONNECTOR(TUNER)	[SHEET-104] .. 132/134
	OOB FDC	[SHEET-105] .. 133/134
	FAT TUNER	[SHEET-106] .. 134/134

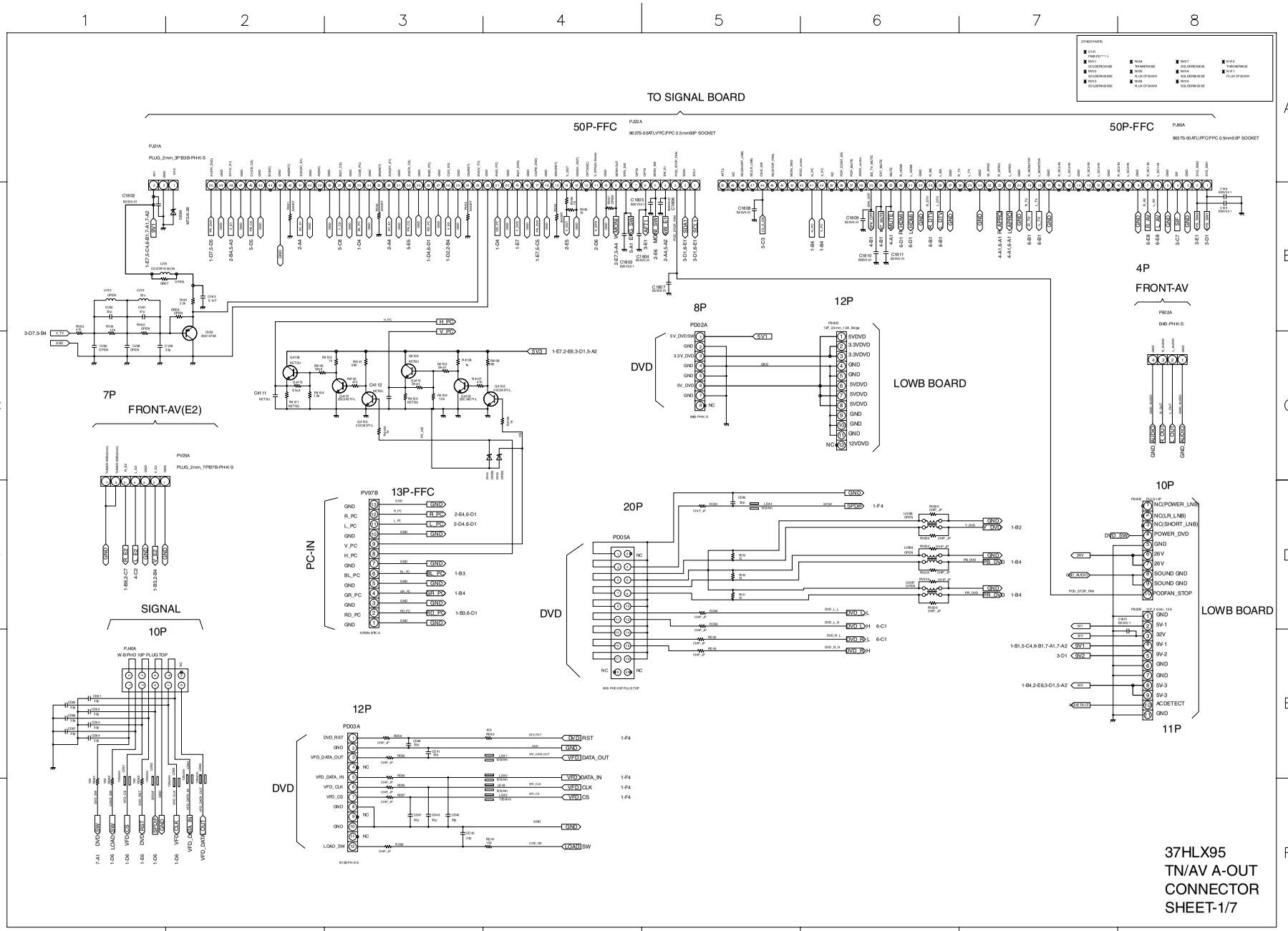
CIRCUIT BLOCK DIAGRAM

VIDEO OUTPUT (also for recording)

TV set MODE	MONITOR OUT	(REC OUT)
analog TV	○	○
digital TV	○	○
VIDEO1(V/S)	○	○
VIDEO2	○	×
CS1	×	×
CS2	×	×
PC in	×	×
HDMI	×	×
DVD	×	×

× -- picture mute: This TV does not provide.




TO SIGNAL BOARD
50P-FFC
50P-FFC
4P
FRONT-AV
8P
12P
LOWB BOARD
DVD
7P
FRONT-AV(E2)
13P-FFC
PC-IN
20P
10P
SIGNAL
10P
12P
DVD
LOWB BOARD
11P
37HLX95
TN/AV A-OUT
CONNECTOR
SHEET-1/7

(TOP SIDE)

VIDEO-2 VIDEO-1

S

V

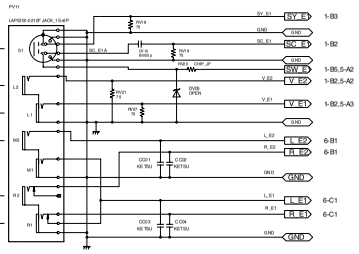
V

L

L/MONO

R

R



COLOR\STREAM\HD-1

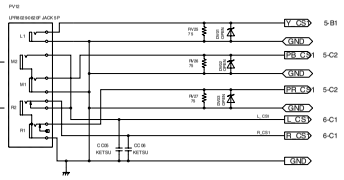
Y

L/MONO

PB

R

PR



COLOR\STREAM\HD-2

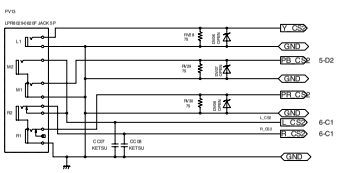
Y

L/MONO

PB

R

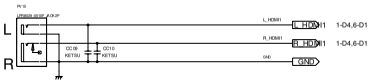
PR



HDMI\Audio-In

L

R



MONITOR\OUT

Variable\AUDIO\OUT

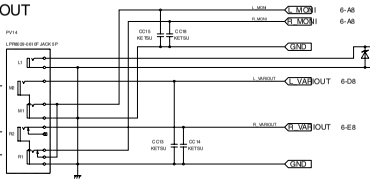
V

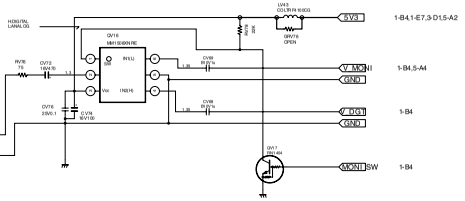
L

L/MONO

R

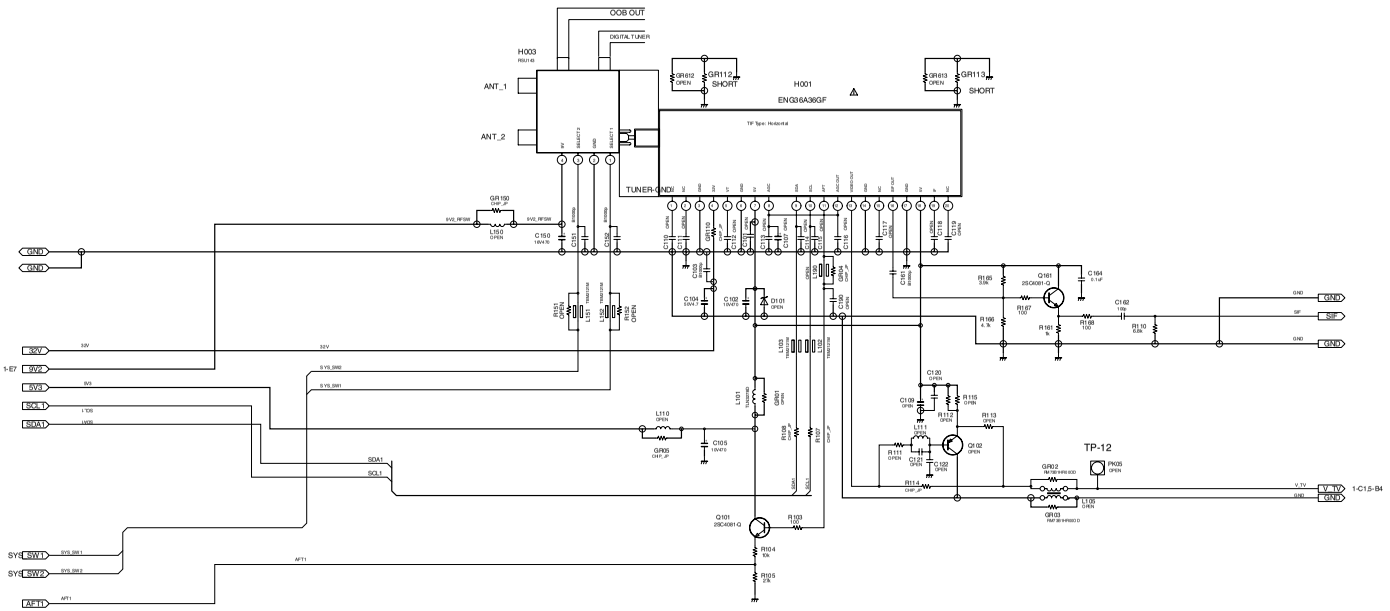
R

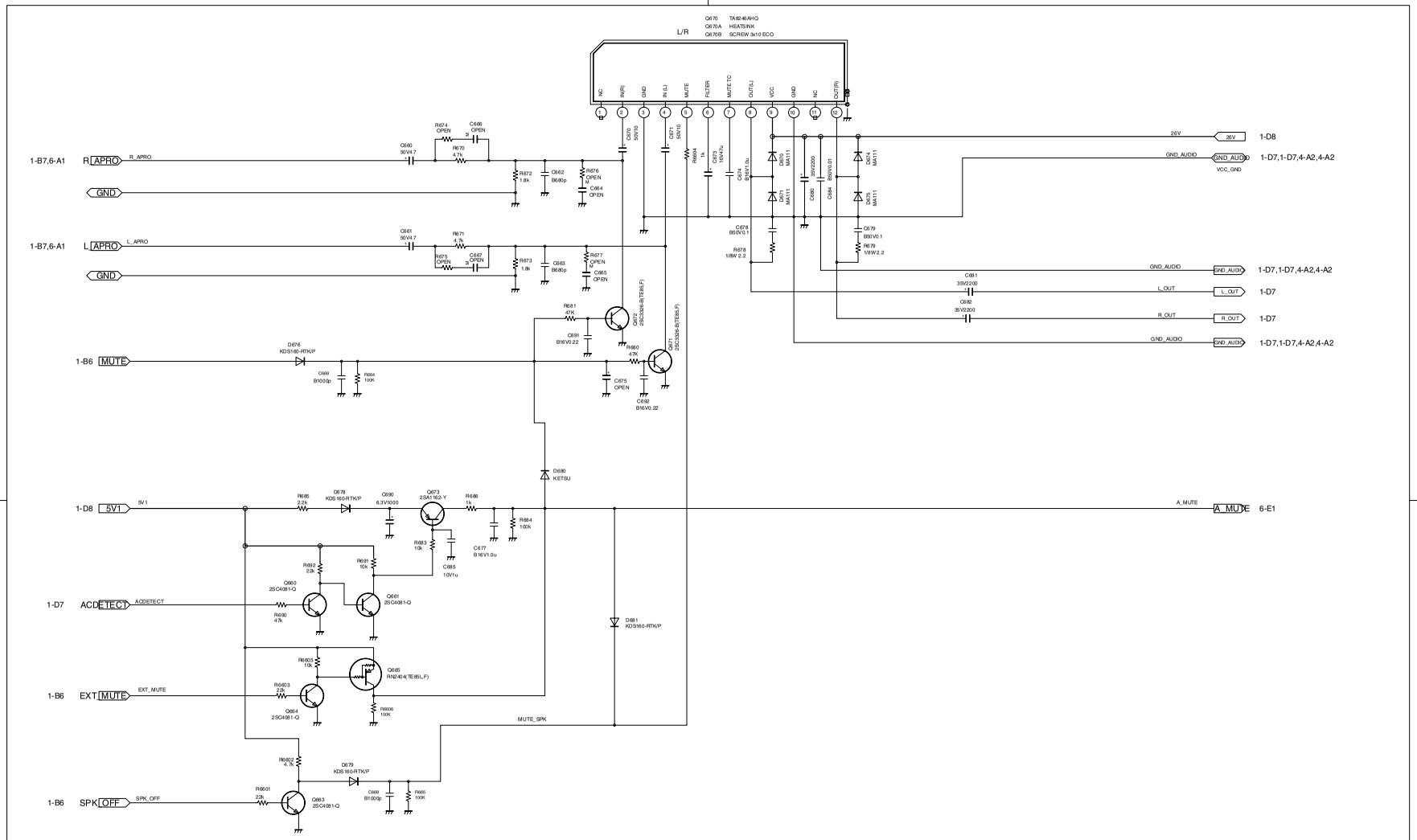


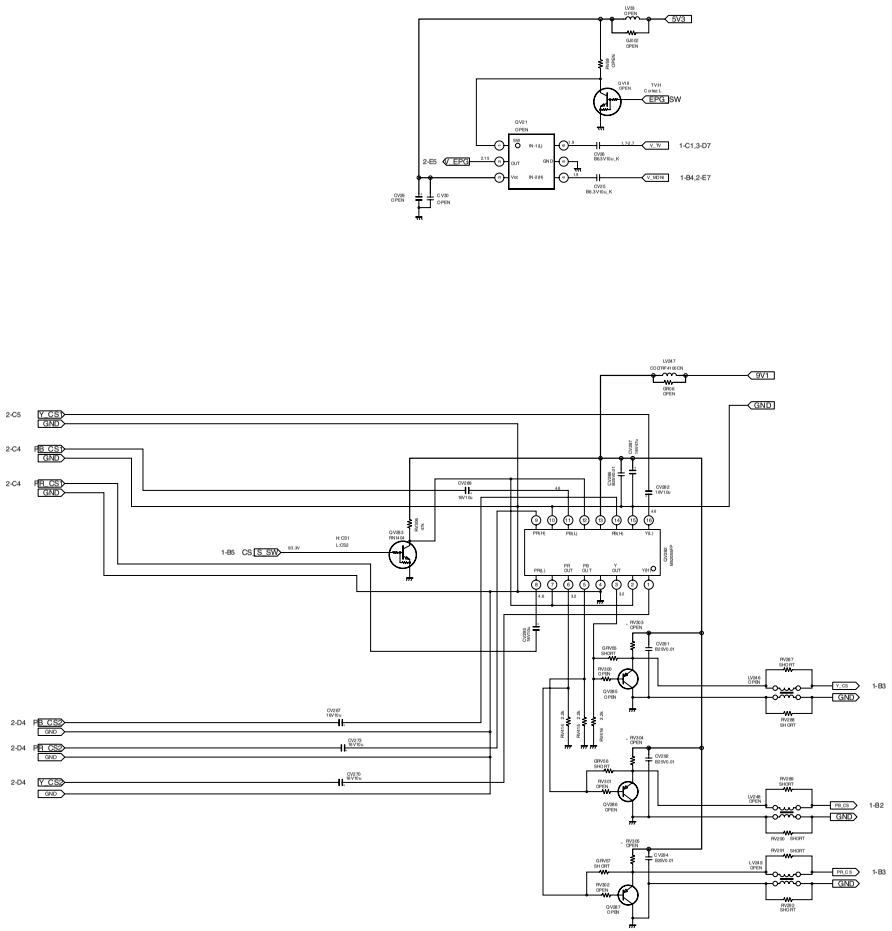


(BOTTOM SIDE)

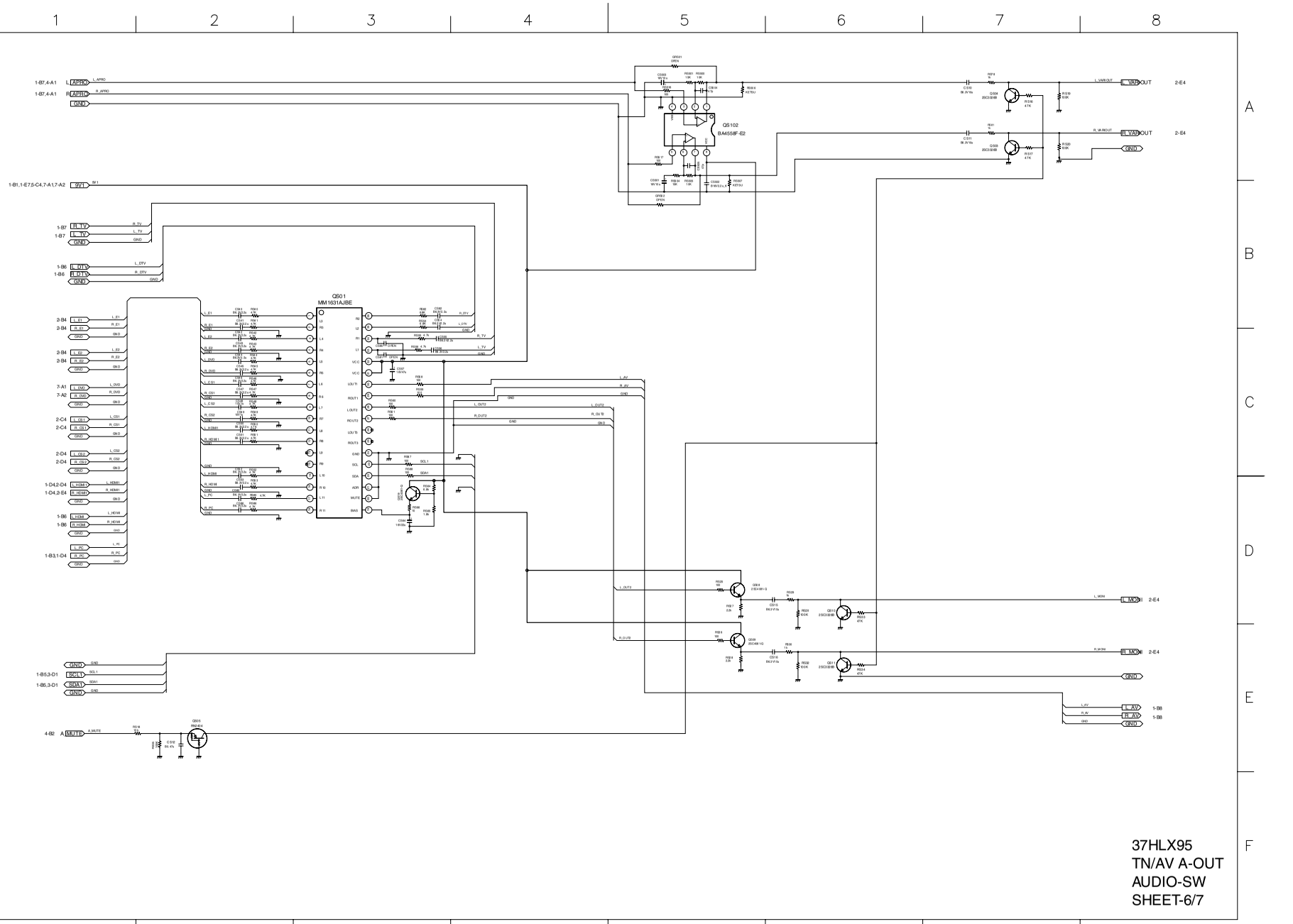
37HLX95
TN/AV A-OUT
AV TERMINAL
SHEET-2/7

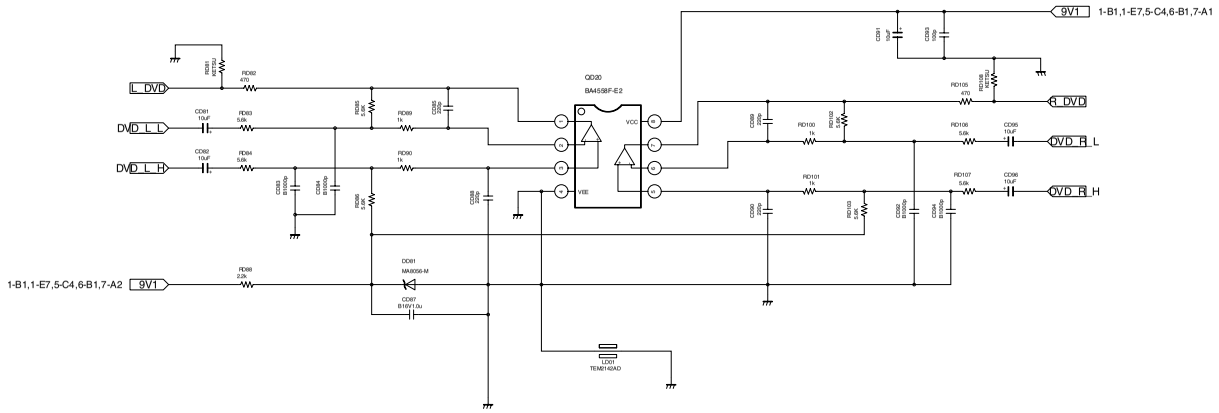

OOB OUT
DIGITAL TUNER
H003
ANT_1
ANT_2
H001
ENG36A36GF
TUNER-GND/
GR112
SHORT
GR113
SHORT
GR602
OPEN
GR603
OPEN
GR150
0HM_JP
L150
0.47UH
C150
10UH 10
C151
C152
C110
C111
C112
C113
C114
C115
C116
C117
C118
C119
C107
C108
C109
C120
C121
C122
C123
C124
C125
C126
C127
C128
C129
C130
C131
C132
C133
C134
C135
C136
C137
C138
C139
C140
C141
C142
C143
C144
C145
C146
C147
C148
C149
C150
C151
C152
C153
C154
C155
C156
C157
C158
C159


L/R
Q670 TA8246AHQ
Q670A HEATSINK
Q670B SCREW 3x10 ECO
NC
IN(R)
GND
IN (L)
MUTE
FILTER
MUTE TC
OUT(L)
VCC
GND
NC
OUT(R)
1-B7,6-A1 R APRO R_APRO
GND
1-B7,6-A1 L APRO L_APRO
GND
1-B6 MUTE
1-D8 5V1 5V1
1-D7 ACDETECT ACDETECT
1-B6 EXT MUTE EXT_MUTE
1-B6 SPK OFF SPK_OFF
MUTE_SPK
A_MUTE
A_MUTE 6-E1
26V
26V 1-D8
GND_AUDIO
GND_AUDIO 1-D7,1-D7,4-A2,4-A2
VCC_GND
GND_AUDIO
GND_AUDIO 1-D7,1-D7,4-A2,4-A2
L_OUT
L_OUT 1-D7
R_OUT
R_OUT 1-D7
GND_AUDIO
GND_AUDIO 1-D7,1-D7,4-A2,4-A2
37HLX95
TN/AV A-OUT
A-OUT
SHEET-4/7

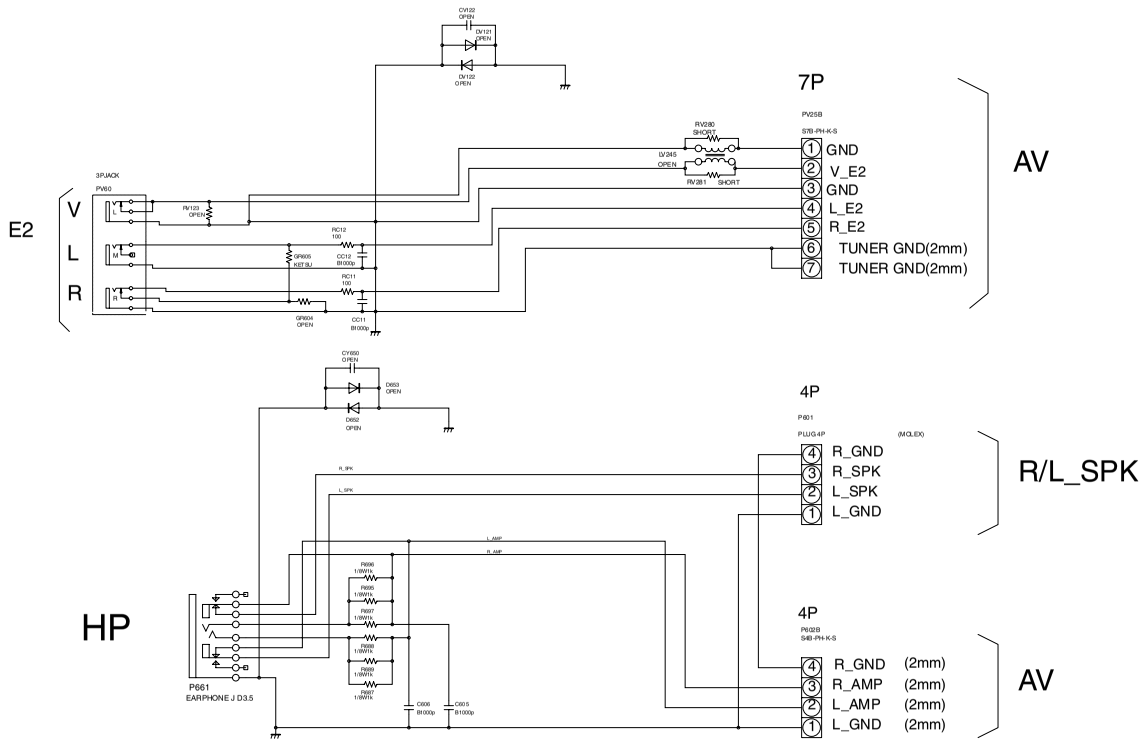


37HLX95
TN/AV A-OUT
VIDEO-SW
SHEET-5/7

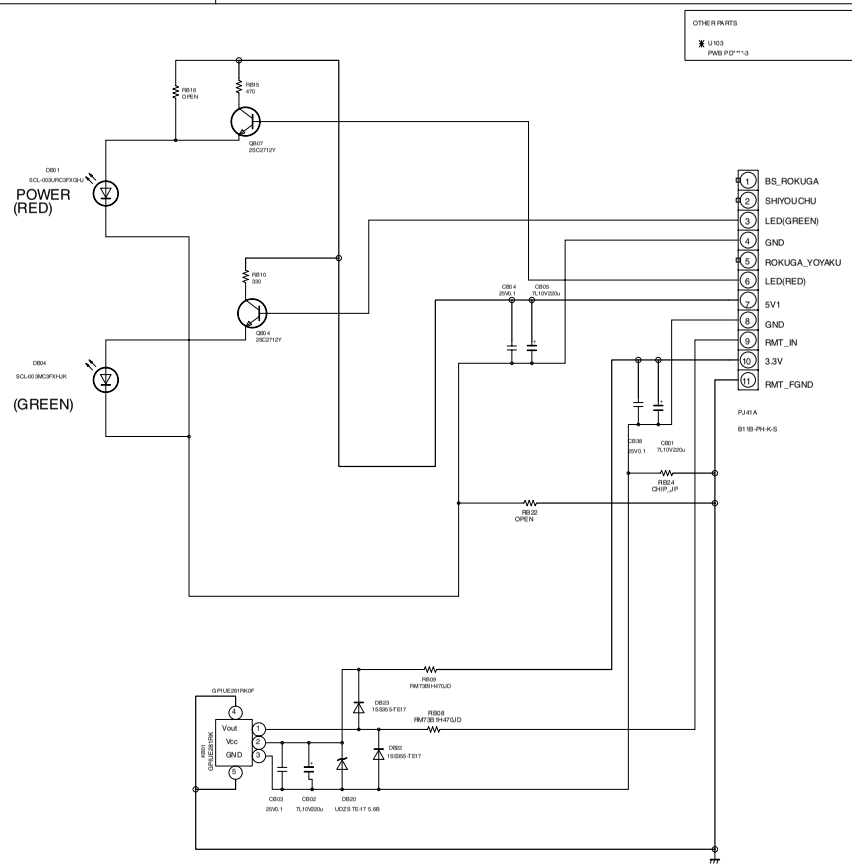

QS102
BA4558F-E2
QS501
MM1631AJBE
37HLX95
TN/AV A-OUT
AUDIO-SW
SHEET-6/7



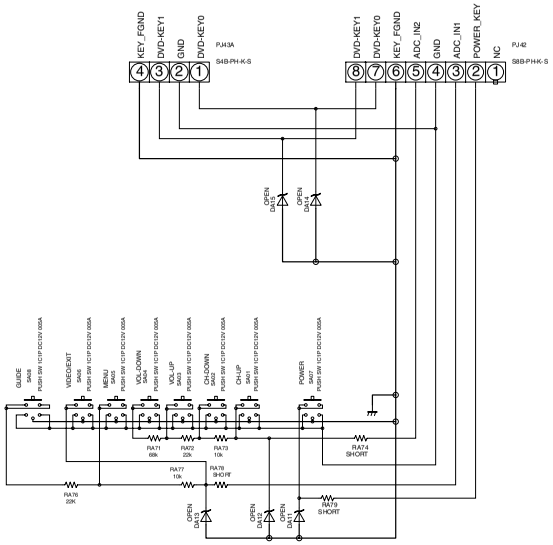
37HLX95
TN/AV A-OUT
DVD OP AMP
SHEET-7/7



37HLX95
FRONT-AV



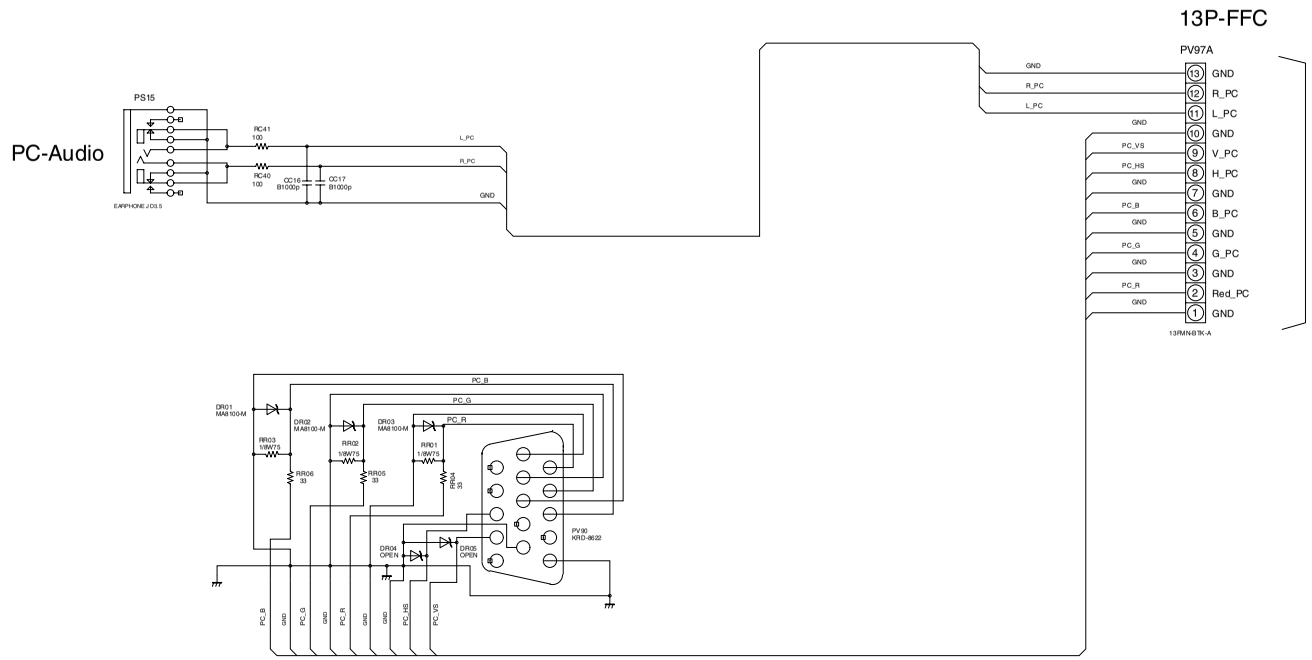
37HLX95
LED_RMT



OTHER PARTS

✱ U104
PWB P37**-4

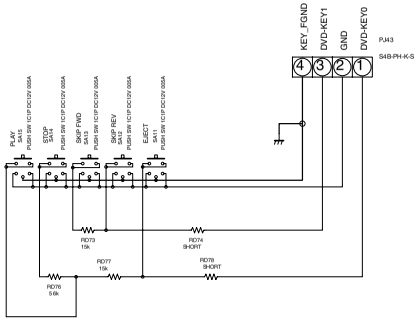
37HLX95
KEY

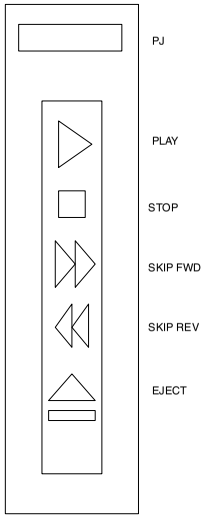


37HLX95
PC-IN

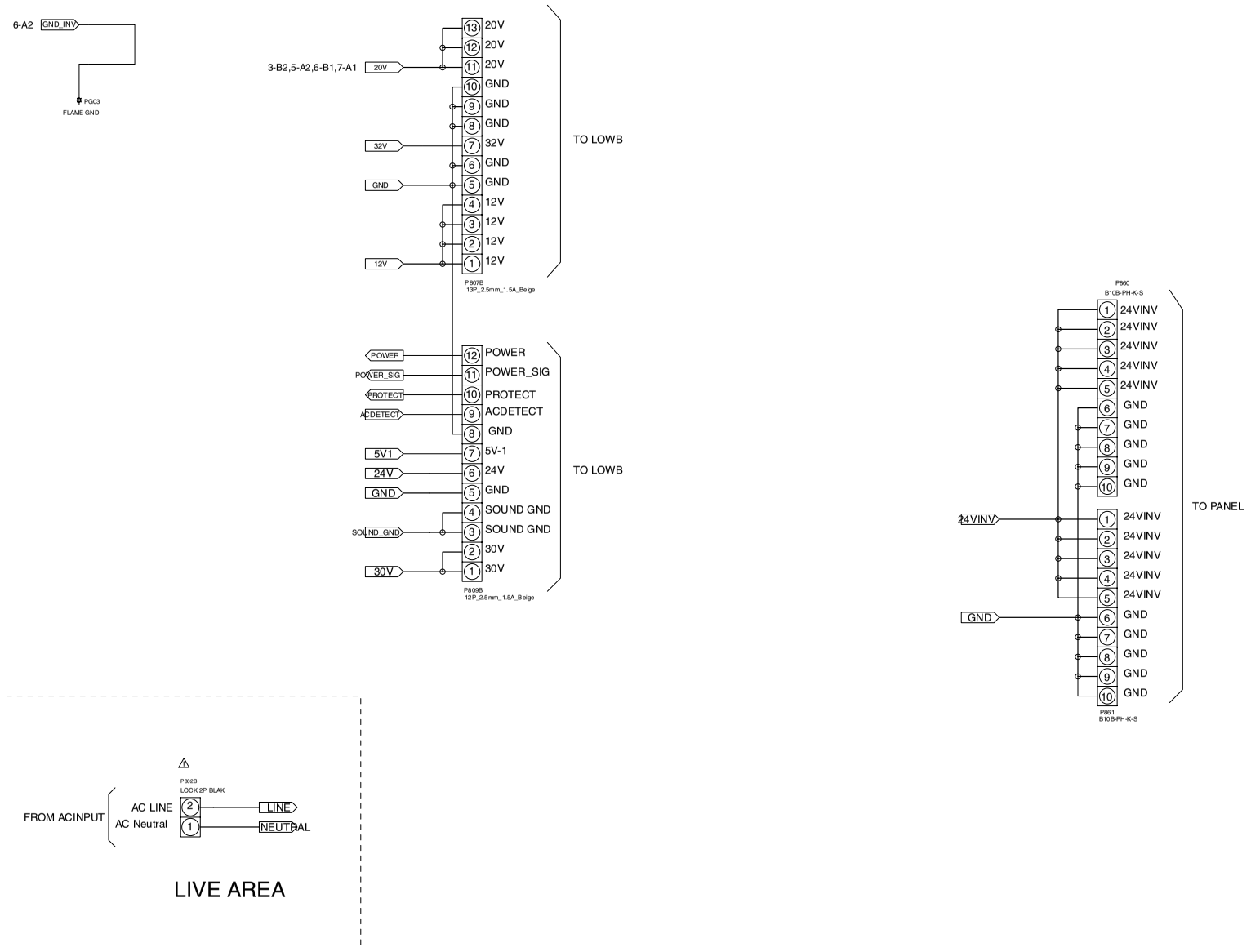
OTHER PARTS

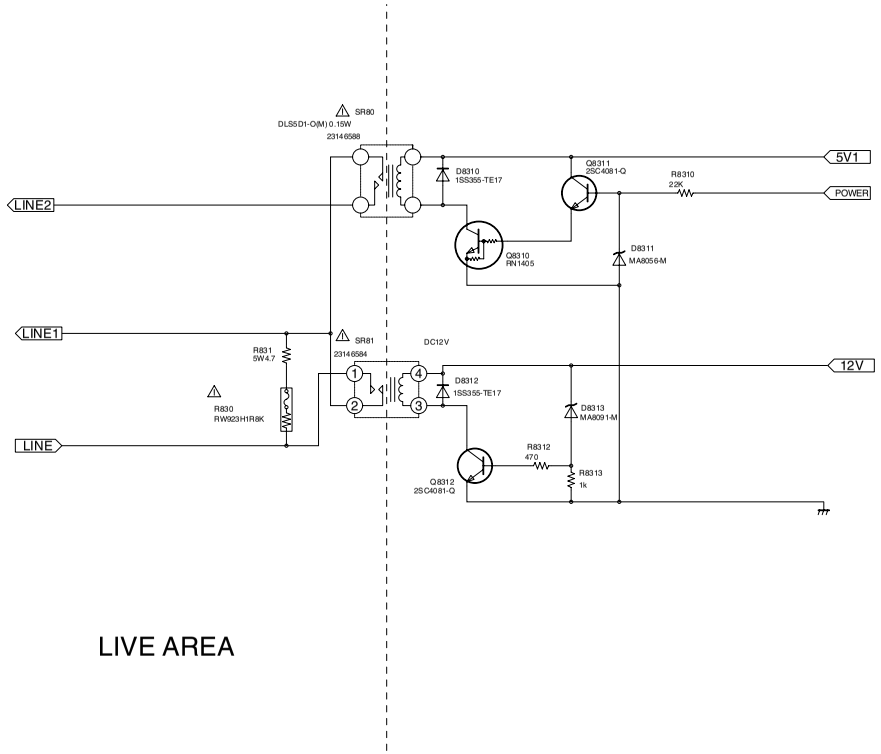
U106
PWB:PD***-6





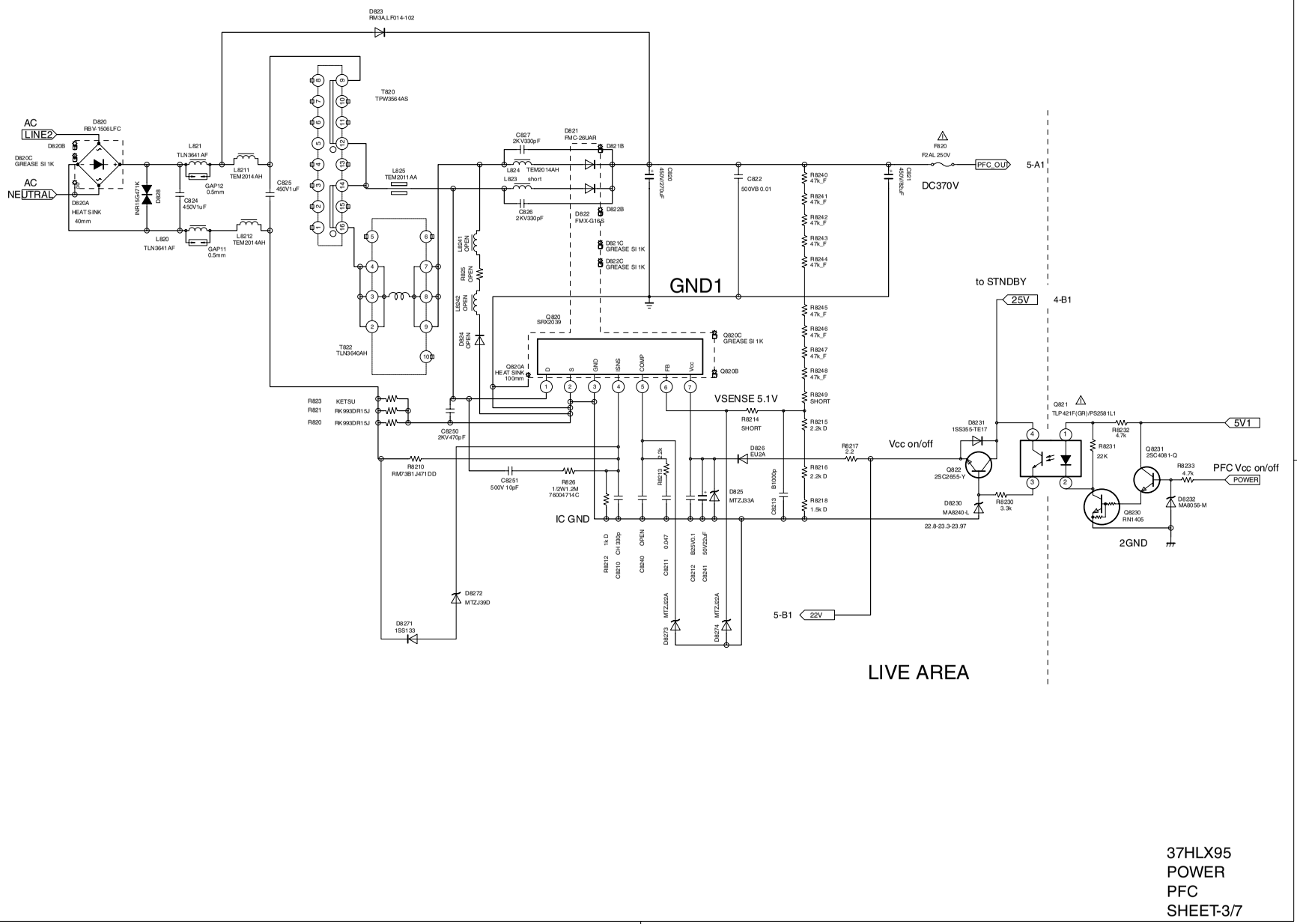
37HLX95
DVD-KEY

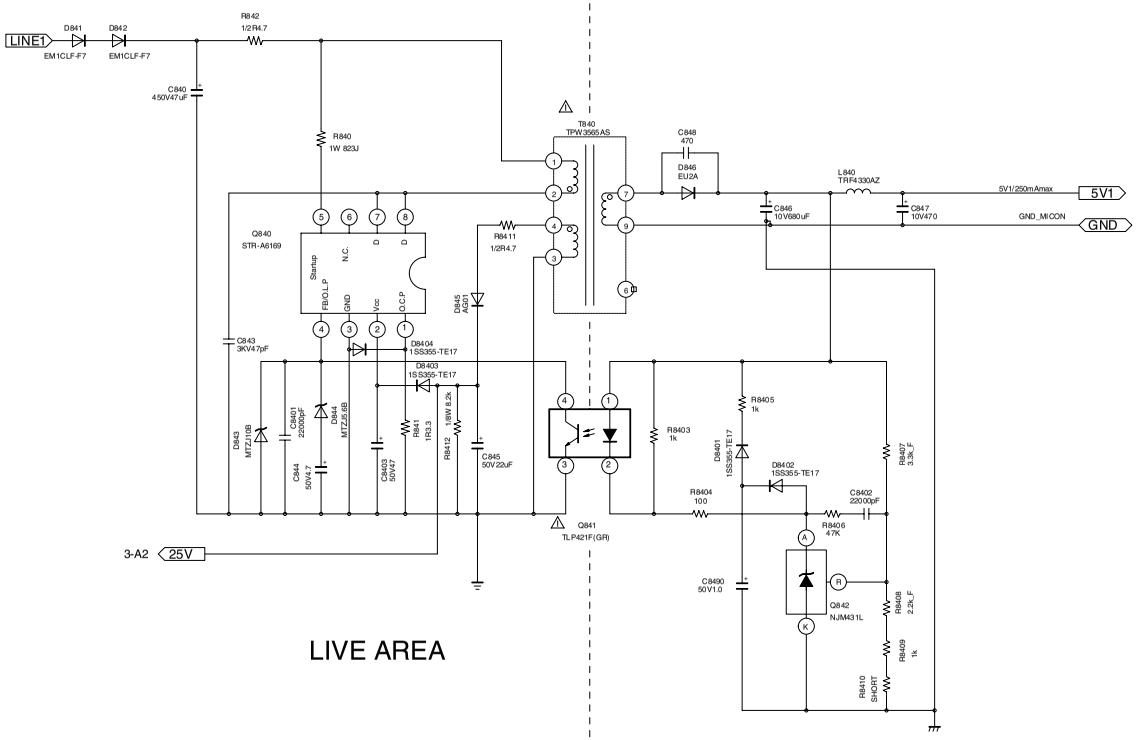

6-A2
GND_INV
PG03
FLAME GND
3-B2,5-A2,6-B1,7-A1
20V
32V
GND
12V
13 20V
12 20V
11 20V
10 GND
9 GND
8 GND
7 32V
6 GND
5 GND
4 12V
3 12V
2 12V
1 12V
TO LOWB
P807B
13P_2.5mm_1.5A_Beige
POWER
POWER_SIG
PROTECT
ACDETECT
5V1
24V
GND
30V
12 POWER
11 POWER_SIG
10 PROTECT
9 ACDETECT
8 GND
7 5V-1
6 24V
5 GND
4 SOUND GND
3 SOUND GND
2 30V
1 30V
TO LOWB
P809B
12P_2.5mm_1.5A_Beige
P860
B10B-PH-K-S
1 24VINV
2 24VINV
3 24VINV
4 24VINV
5 24VINV
6 GND
7 GND
8 GND
9 GND
10 GND
TO PANEL
24VINV
GND
P861
B10B-PH-K-S
P802B
LOCK 2P BLAK
FROM ACINPUT
AC LINE
AC Neutral
LINE
NEUTRAL
LIVE AREA
37HLX95
POWER
CONNECTOR
SHEET-1/7



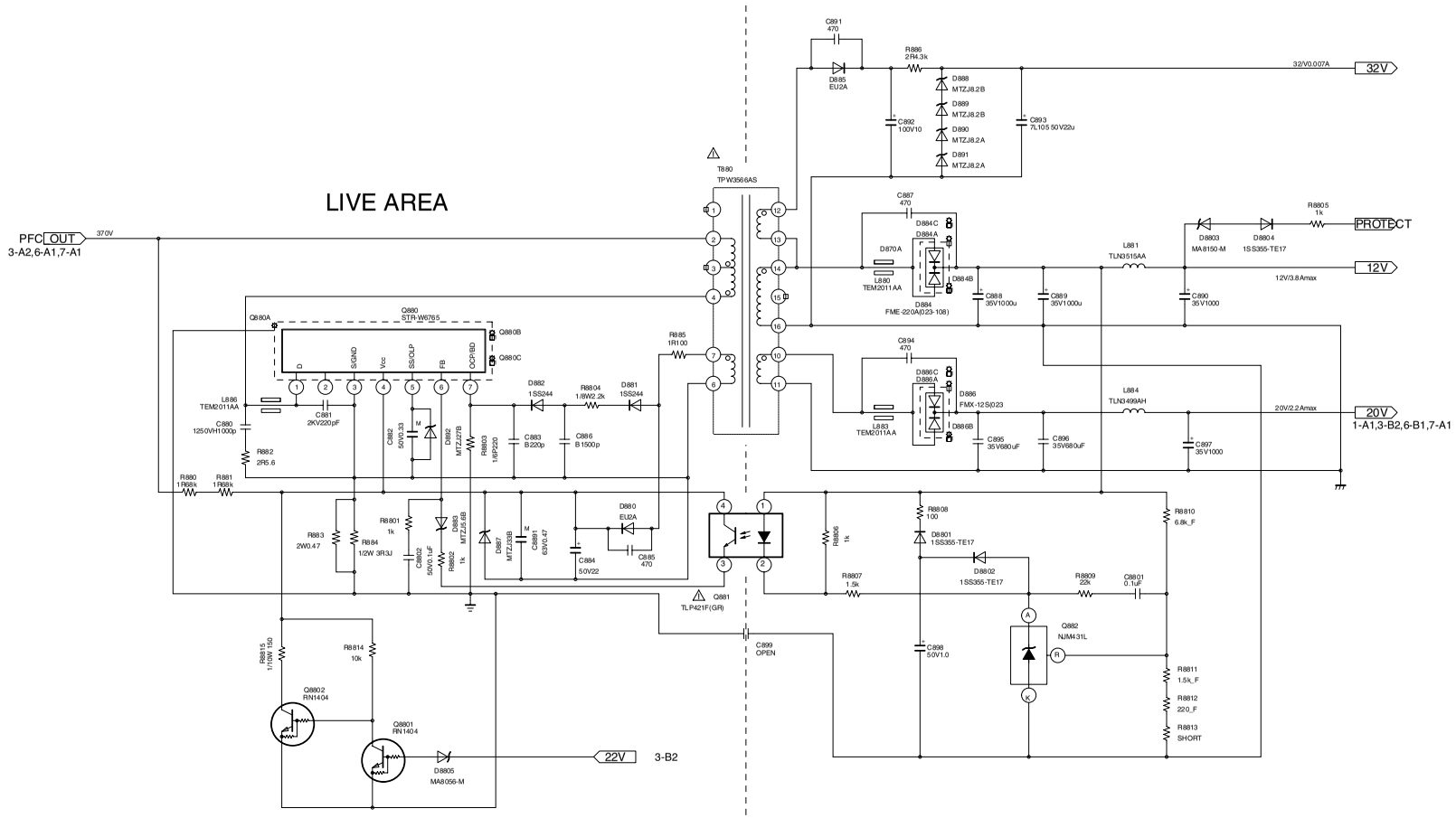
LIVE AREA

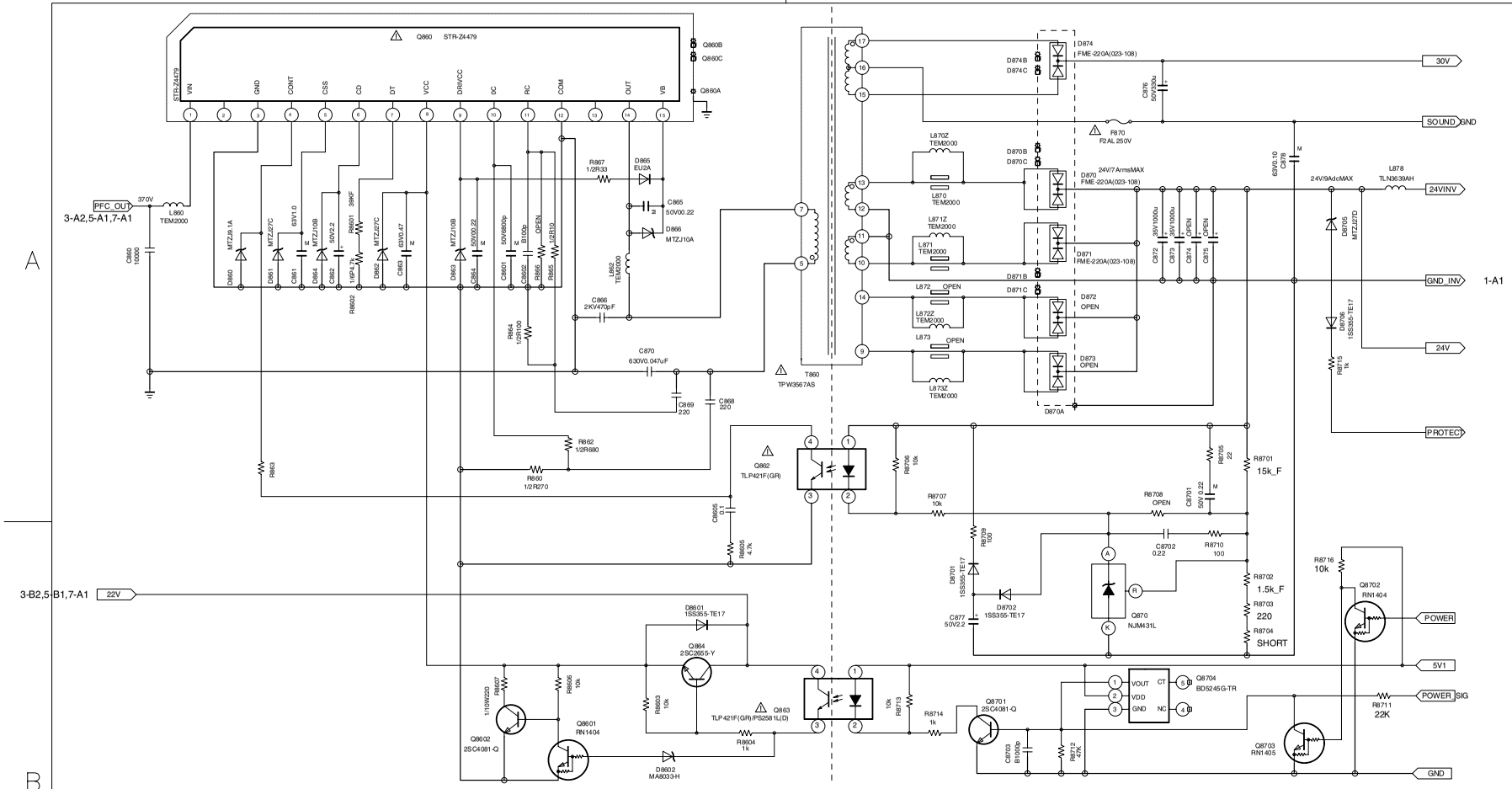
37HLX95
POWER
RELAY/RUSH PROTECTION
SHEET-2/7

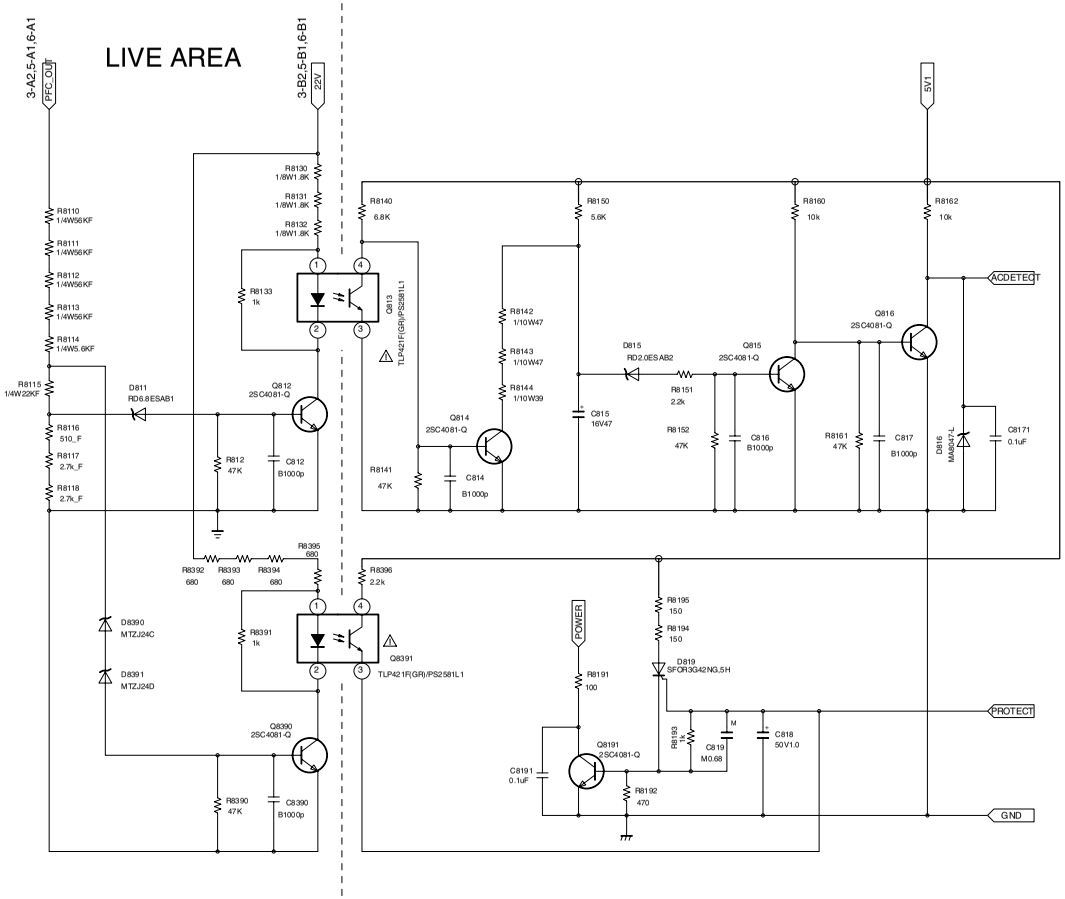

AC LINE2
AC NEUTRAL
D820 RBV-1506LFC
D820B
D820C GREASE SI 1K
D820A HEAT SINK 40mm
D823 RM3/4LFR014-102
T820 TPW3564AS
L821 TLN3641AF
L820 TLN3641AF
L8211 TEM2014AH
L8212 TEM2014AH
GAP12 0.5mm
GAP11 0.5mm
C824 450V1uF
C825 450V1uF
D828 INR15G471K
L825 TEM2011AA
C827 2KV330pF
C826 2KV330pF
L824 TEM2014AH
L823 short
D821 FMC-26UAR
D821B
D822 FMX-G16S
D822B
D821C GREASE SI 1K
D822C GREASE SI 1K
C820 450V220uF
C822 500VB 0.01
C823 450V220uF
R8240 47k_F
R8241 47k_F
R8242 47k_F
R8243 47k_F
R8244 47k_F
R8245 47k_F
R8246 47k_F
R8247 47k_F
R8248 47k_F
R8249 SHORT
R8215 2.2k D
R8216 2.2k D
R8218 1.5k D
F820 F2 AL 250V
PFC_OUT
5-A1
DC370V
GND1
L8241 OPEN
R825 OPEN
L8242 OPEN
D824 OPEN
T822 TLN3640AH
Q820 SRX2039
Q820A HEAT SINK 10mm
Q820C GREASE SI 1K
Q820B
D GND ISNS COMP FB Vcc
R823 KETSU
R821 RK993DR15J
R820 RK993DR15J
C8250 2KV470pF
R8210 RM73B1J471DD
C8251 500V 10pF
R826 1/2W1.2M 7600471C
R8213 2.2k
VSENSE 5.1V
R8214 SHORT
D826 EU2A
D825 MTZJ33A
C8213 B1000p
R8217 2.2
Vcc on/off
IC GND
R8212 1k D
C8210 CH 330p
C8240 OPEN
C8211 0.047
C8212 B25V0.1
C8241 50V22uF
D8273 MTZJ22A
D8274 MTZJ22A
D8272 MTZJ39D
D8271 1SS133
5-B1
22V
to STNDBY
25V
4-B1
D8231 1SS355-TE17
Q821 TLP421F(GR)/PS2581L1
R8232 4.7k
5V1
R8231 22K
Q822 2SC2655-Y
Q8231 2SC4081-Q
R8233 4.7k
PFC Vcc on/off
POWER
D8230 MA8240-L
R8230 3.3k
22.8-23.3-23.97
Q8230 RN1405
D8232 MA8056-M
2GND
LIVE AREA
37HLX95
POWER
PFC
SHEET-3/7



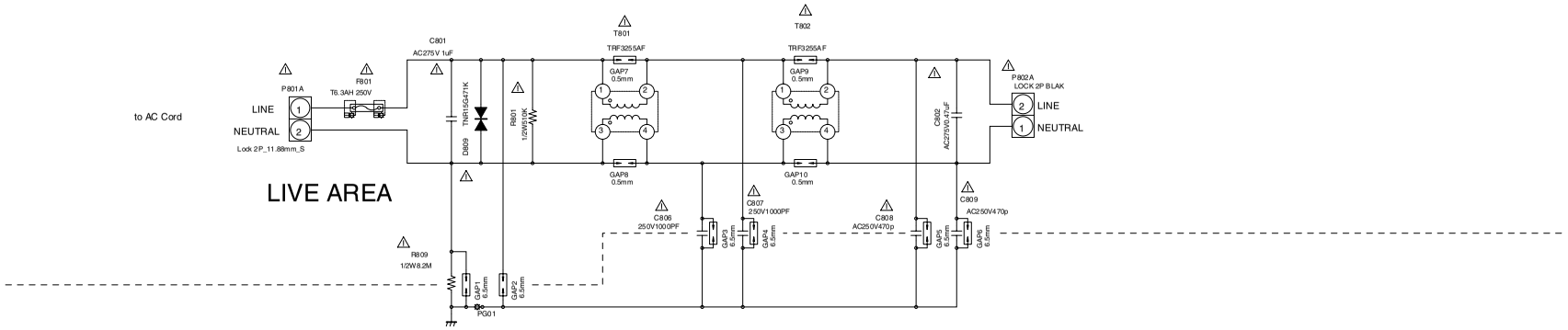
37HLX95
POWER
STANDBY-POWER
SHEET-4/7


LIVE AREA
PFC OUT
370V
3-A2,6-A1,7-A1
T880
TPW3566AS
C891
470
D885
EU2A
R886
2R4.3k
32V/0.007A
32V
D888
MTZJ8.2B
D889
MTZJ8.2B
D890
MTZJ8.2A
D891
MTZJ8.2A
C892
100V10
C893
PL105 50V22u
C887
470
D884C
D884A
D870A
L880
TEM2011AA
D884
FME-220A(023-108)
D884B
C888
35V1000u
C889
35V1000u
L881
TLN3515AA
D8803
MA8150-M
D8804
1SS355-TE17
R8805
1k
PROTECT
12V
12V/3.8Amax
C890
35V1000
Q880A
Q880
STR-W6765
Q880B
Q880C
D
S/GND
Vcc
SS/OLP
FB
OCP/BD
R885
1R100
C894
470
D886C
D886A
D886
FMX-12S(023
D886B
L883
TEM2011AA
C895
35V680uF
C896
35V680uF
L884
TLN3499AH
2.0V/2.2Amax
20V
1-A1,3-B2,6-B1,7-A1
C897
35V1000
L886
TEM2011AA
C880
1250VH1000p
C881
2KV220pF
C882
50V0.33
M
D882
1SS244
R8804
1/8W2.2k
D881
1SS244
C883
B 220p
C886
B 1500p
D882
MTZJ27B
R8803
1/8P220
R882
2R5.6
R880
1/8W1k
R881
1/8W1k
R883
2W0.47
R884
1/2W 3R3J
R8801
1k
C8802
50V0.1uF
R8802
1k
D883
MTZJ3.6B
D887
MTZJ33B
C8881
63V0.47
C884
50V22
D880
EU2A
C885
470
Q881
TLP421F(GR)
R8806
1k
R8808
100
D8801
1SS355-TE17
D8802
1SS355-TE17
R8807
1.8k
R8809
22k
C8801
0.1uF
R8810
6.8k_F
C899
OPEN
C898
50V1.0
Q882
NJM431L
R8811
1.5k_F
R8812
220_F
R8813
SHORT
R8815
1/10W 150
R8814
10k
Q8802
RN1404
Q8801
RN1404
D8805
MA8056-M
22V
3-B2
37HLX95
POWER
RCC POWER
SHEET-5/7

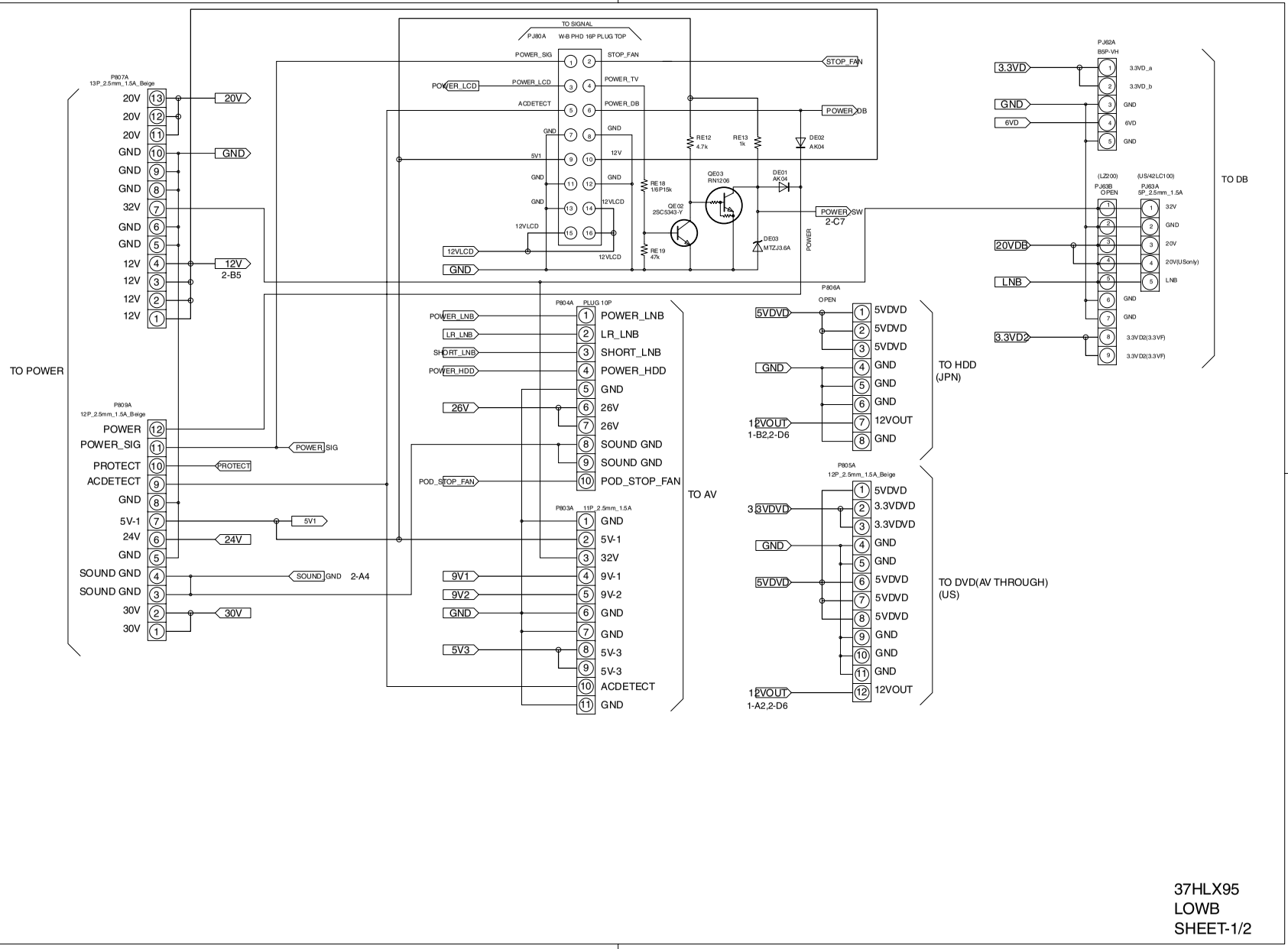

Q860 STR-Z4479
STR-Z4479
VIN
GND
CONT
CSS
CD
DT
VCC
DRIVCC
OC
RC
COM
OUT
VB
Q860B
Q860C
Q860A
PFC_OUT
370V
3-A2,5-A1,7-A1
L860
TEM2000
C860
10000
D860
MTZJ6.1A
D861
MTZJ27C
C861
M
D864
MTZJ10B
C862
50V/2.2
R8601
39KF
1/6P4.7K
R8602
D862
MTZJ27C
C863
63V/0.47
M
D863
MTZJ10B
C864
50V/0.22
M
C8601
50V/680p
M
C8602
B100p
R866
QPEN
R865
J/2R10
R864
1/2R/470
R867
1/2R/33
D865
EU2A
C865
50V/0.22
M
D866
MTZJ10A
L862
TEM2000
C866
2KV/470pF
C870
630V/0.047uF
C869
2.20
C868
220
T860
TPW3567AS
R862
1/2R/680
R860
1/2R/270
R855
Q862
TLP421F(GR)
C8605
0.1
R8605
4.7k
R8706
10k
R8707
10k
R8708
OPEN
C8701
50V/0.22
M
R8705
22
R8701
15k_F
R8709
100
C8702
0.22
R8710
100
D8701
1SS355-TE17
D8702
1SS355-TE17
C877
50V/2.2
Q870
NJM431L
R8702
1.5k_F
R8703
220
R8704
SHORT
R8716
10k
Q8702
RN1404
3-B2,5-B1,7-A1
22V
D8601
1SS355-TE17
Q864
2SC2655-Y
1/10W/220
R8607
10k
R8606
10k
Q8602
2SC4081-Q
Q8601
RN1404
D8602
MA8033-H
R8603
10k
Q863
TLP421F(GR)/PS2581L(D)
R8604
1k
10k
R8713
R8714
1k
Q8701
2SC4081-Q
C8703
B1000p
R8712
47K
Q8704
BD5245G-TR
VOUT
CT
VDD
GND
NC
Q8703
RN1405
R8711
22K
D874
FME-220A(023-108)
D874B
D874C
C876
50/330u
F870
F2AL 250V
30V
SOUND_GND
L870Z
TEM2000
D870B
D870C
L870
TEM2000
D870
24V/7 ArmsMAX
FME-220A(023-108)
L871Z
TEM2000
L871
TEM2000
D871
FME-220A(023-108)
D871B
D871C
L872
OPEN
L872Z
TEM2000
D872
OPEN
L873
OPEN
L873Z
TEM2000
D873
OPEN
D870A
C872
35V/1000u
C873
35V/1000u
C874
OPEN
C875
OPEN
C878
63V/0.10
M
24V/9AdcMAX
L878
TLN3639AH
24VINV
GND_INV
1-A1
24V
D8705
MTZJ27D
D8706
1SS355-TE17
R8715
1k
PROTEC
POWER
5V1
POWER_SIG
GND
LIVE AREA
37HLX95
POWER
RESONANCE POWER
SHEET-6/7

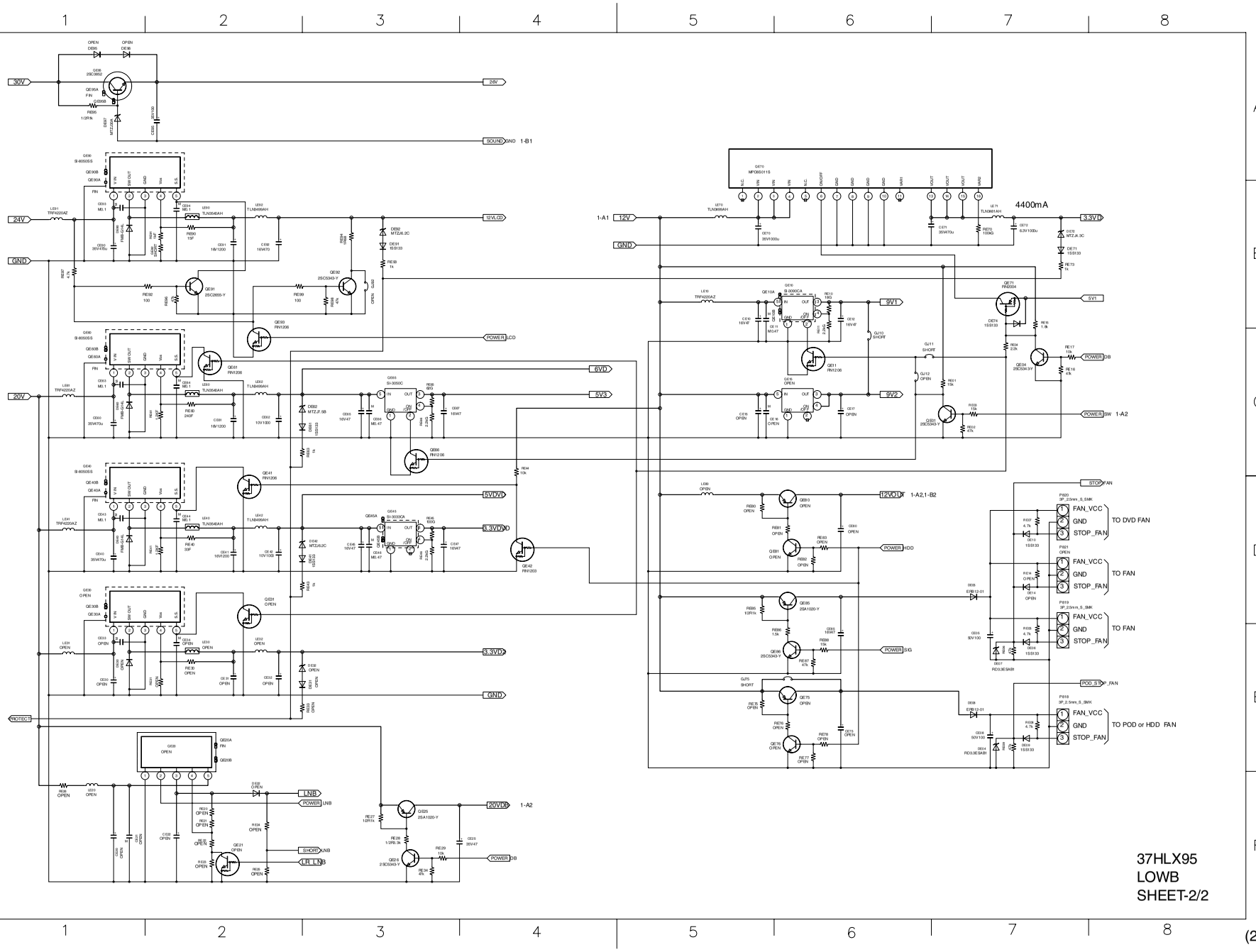


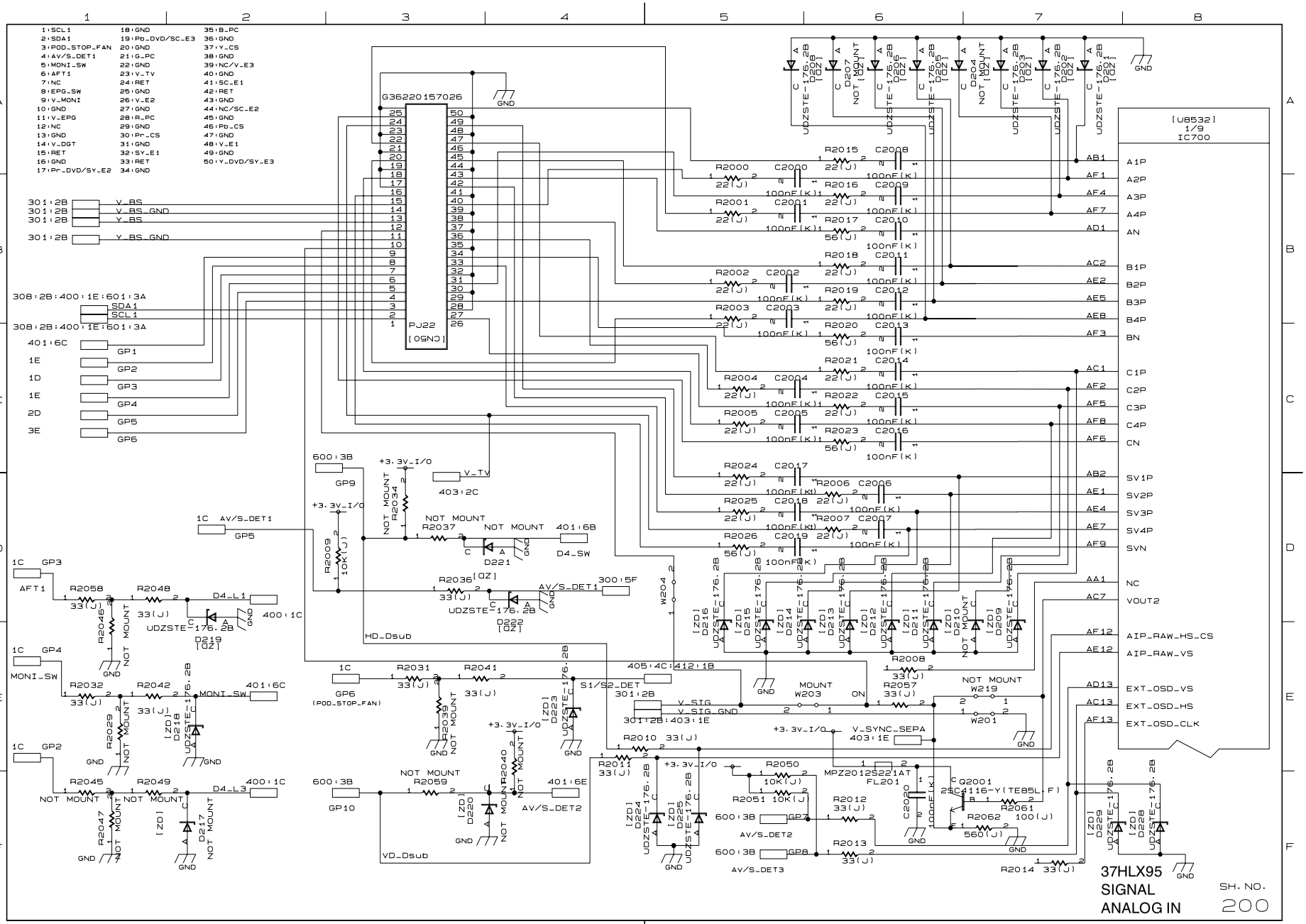
37HLX95
POWER
PROTECT AC DETECT
SHEET-7/7

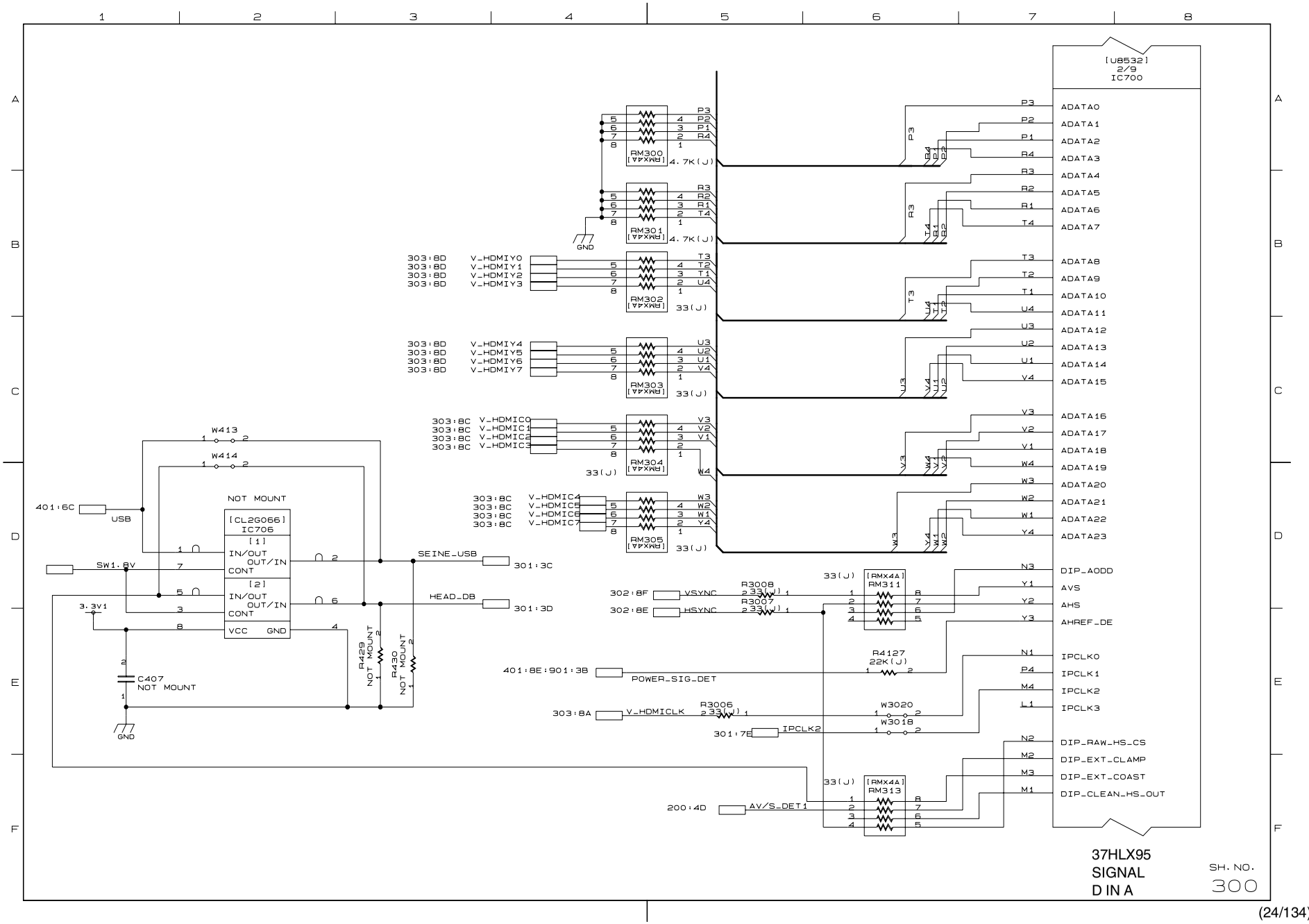


37HLX95
AC-INPUT


TO SIGNAL
PJ80A W-B PHD 16P PLUG TOP
POWER_SIG
STOP_FAN
POWER_LCD
POWER_TV
ACDETECT
POWER_DB
5V1
12V
12VLCD
RE12 4.7k
RE13 1k
DE02 AK04
RE18 1/6P15k
QE03 RN1206
DE01 AK04
QE02 2SC5343-Y
RE19 47k
DE03 MTZJ3.6A
POWER
POWER_SW
2-C7
P807A 13P_2.5mm_1.5A_Beige
20V
GND
12V
2-B5
TO POWER
P809A 12P_2.5mm_1.5A_Beige
POWER
POWER_SIG
PROTECT
ACDETECT
5V-1
24V
SOUND GND
30V
SOUND GND 2-A4
P804A PLUG 10P
POWER_LNB
LR_LNB
SHORT_LNB
POWER_HDD
26V
SOUND GND
POD_STOP_FAN
P803A 11P_2.5mm_1.5A
9V1
9V2
5V3
32V
TO AV
P806A
OPEN
5VDVD
3.3VDVD
12VOUT
1-B2,2-D6
TO HDD (JPN)
P805A 12P_2.5mm_1.5A_Beige
1-A2,2-D6
TO DVD(AV THROUGH) (US)
PJ62A B5P-VH
3.3VD
6VD
3.3VD_a
3.3VD_b
PJ63B OPEN
PJ63A 5P_2.5mm_1.5A
(LZ200)
(US/42LC100)
20VDB
LNB
3.3VD2
3.3VD2(3.3VF)
20V(USonly)
TO DB
37HLX95
LOWB
SHEET-1/2

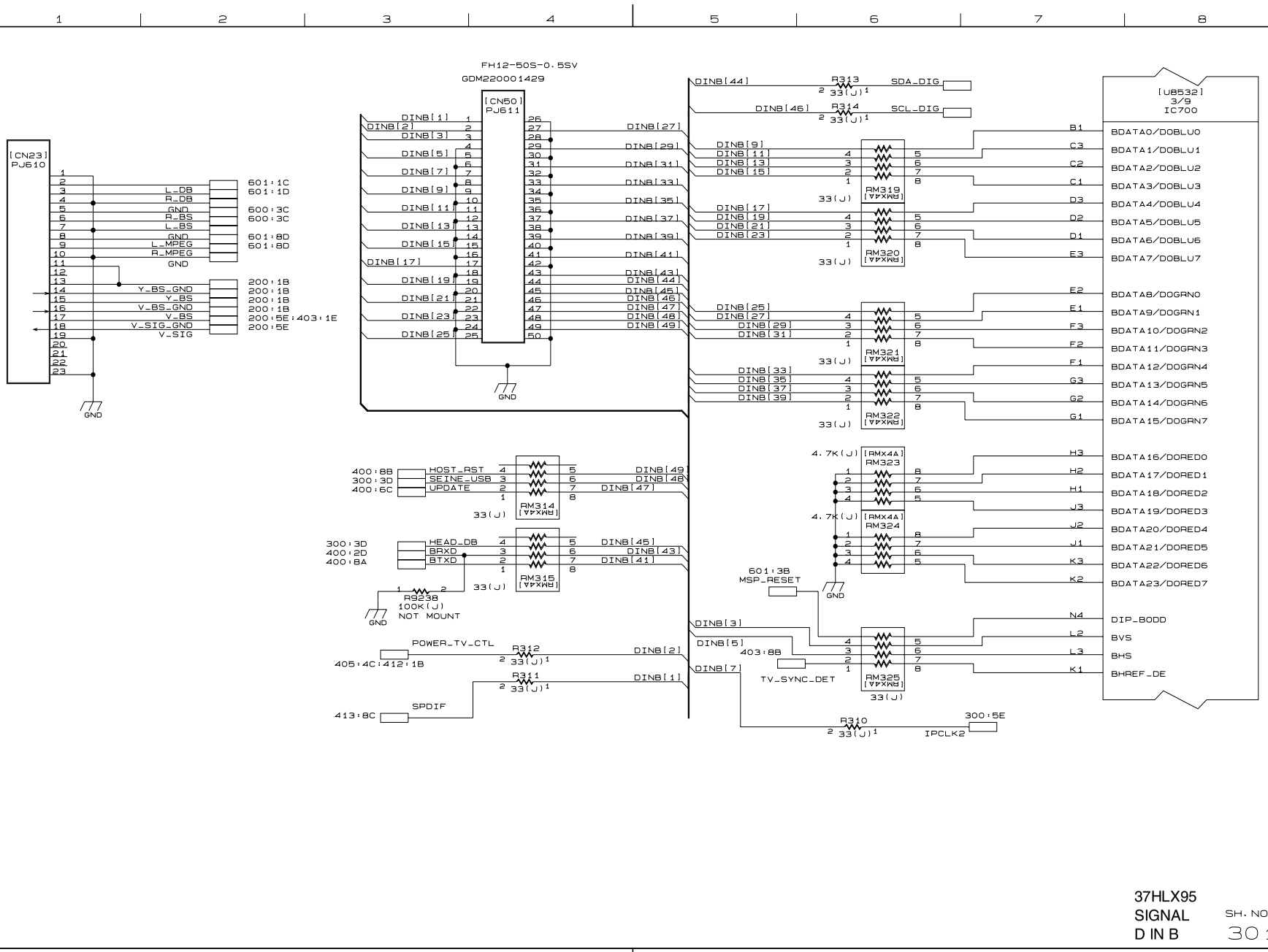

30V
24V
20V
GND
SOUND GND 1-B1
12VLCD
POWER LCD
6VD
5V3
5VDVD
3.3VDD
3.3VD
20VDD 1-A2
HOTEC
LNB
POWER LNB
SHORT LNB
LR LNB
POWER 2B
1-A1 12V
4400mA
3.3V1
9V1
9V2
8V1
POWER DB
POWER SW 1-A2
T2VOUT 1-A2,1-B2
POWER HDD
POWER SIG
STOP FAN
FAN_VCC
GND
STOP_FAN
TO DVD FAN
TO FAN
TO FAN
POD_STOP_FAN
TO POD or HDD FAN
37HLX95
LOWB
SHEET-2/2


1:SCL1
2:SDA1
3:POD_STOP_FAN
4:AV/S_DET1
5:MONI_SW
6:AFT1
7:NC
8:EPG_SW
9:V_MONI
10:GND
11:V_EPG
12:NC
13:GND
14:V_DGT
15:RET
16:GND
17:Pr_DVD/SY_E2
18:GND
19:Pb_DVD/SC_E3
20:GND
21:G_PC
22:GND
23:V_TV
24:RET
25:GND
26:V_E2
27:GND
28:R_PC
29:GND
30:Pr_CS
31:GND
32:SY_E1
33:RET
34:GND
35:B_PC
36:GND
37:Y_CS
38:GND
39:NC/V_E3
40:GND
41:SC_E1
42:RET
43:GND
44:NC/SC_E2
45:GND
46:Pb_CS
47:GND
48:V_E1
49:GND
50:Y_DVD/SY_E3
G36220157026
PJ22
[CN50]
[UB532]
1/9
IC700
A1P
A2P
A3P
A4P
AN
B1P
B2P
B3P
B4P
BN
C1P
C2P
C3P
C4P
CN
SV1P
SV2P
SV3P
SV4P
SVN
NC
VOUT2
AIP_RAW_HS_CS
AIP_RAW_VS
EXT_OSD_VS
EXT_OSD_HS
EXT_OSD_CLK
V_BS
V_BS_GND
Y_BS
Y_BS_GND
SDA1
SCL1
GP1
GP2
GP3
GP4
GP5
GP6
V_TV
AV/S_DET1
S1/S2_DET
V_SIG
V_SIG GND
V_SYNC_SEPA
AV/S_DET2
AV/S_DET3
HD_Dsub
VD_Dsub
MPZ2012S221AT
FL201
37HLX95
SIGNAL
ANALOG IN
SH. NO.
200



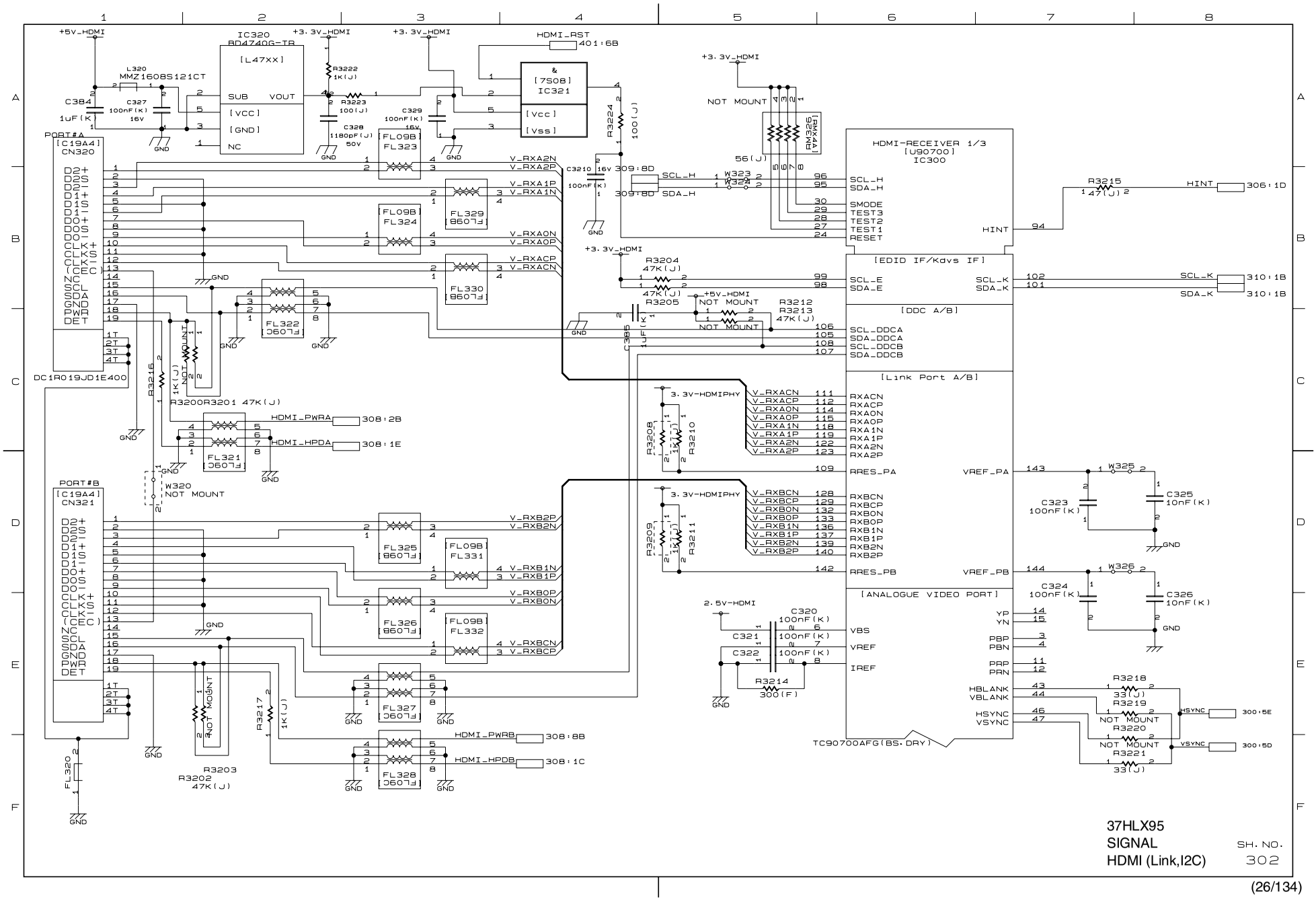
37HLX95
SIGNAL
D IN A

SH. NO.
300

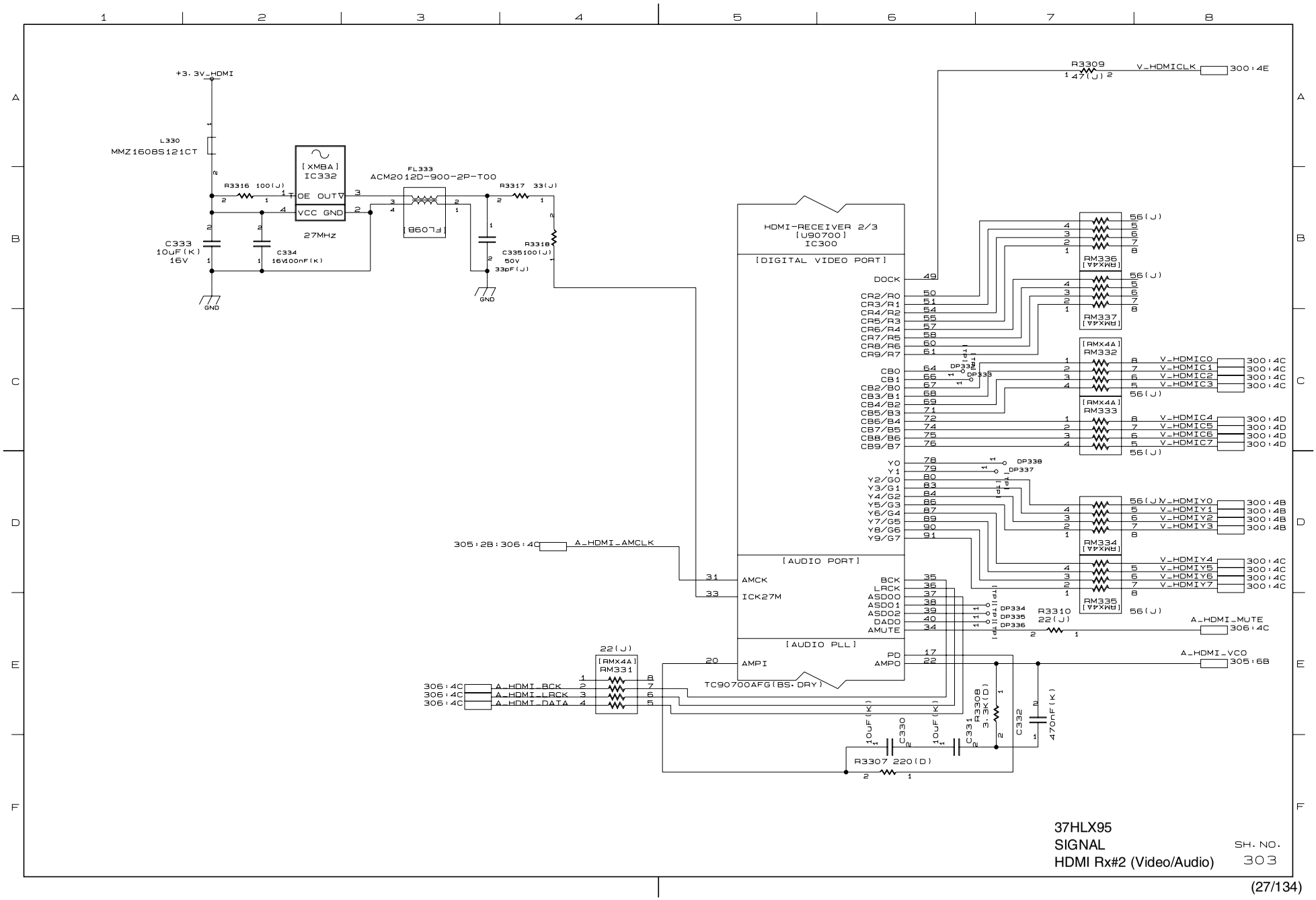


37HLX95
SIGNAL
D IN B

SH. NO.
301

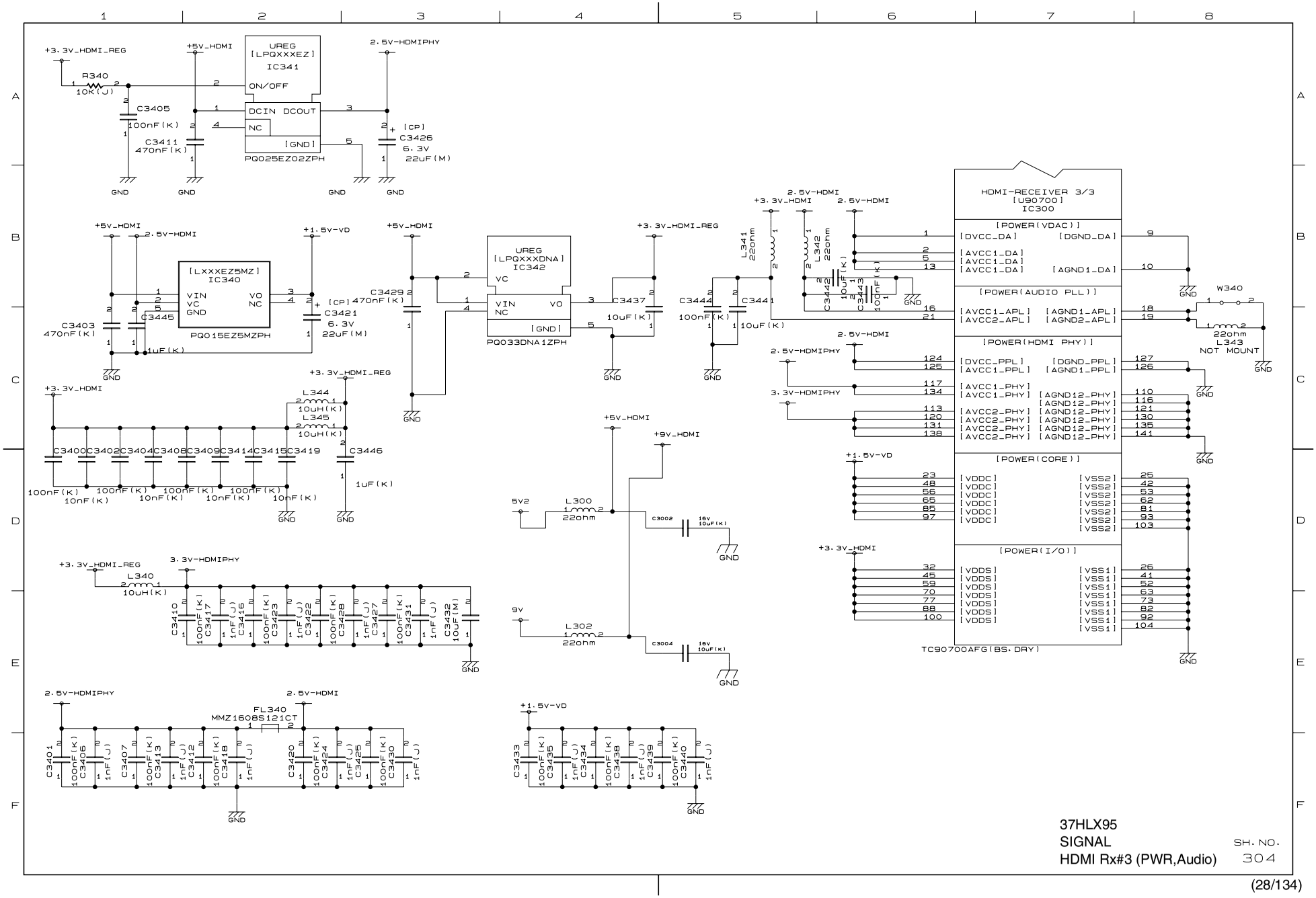

HDMI-RECEIVER 1/3
[U90700]
IC300
TC90700AFG(BS.DRY)
[EDID IF/Kdvs IF]
[DDC A/B]
[Link Port A/B]
[ANALOGUE VIDEO PORT]
PORT#A
PORT#B
37HLX95
SIGNAL
HDMI (Link,I2C)
SH. NO.
302

(26/134)



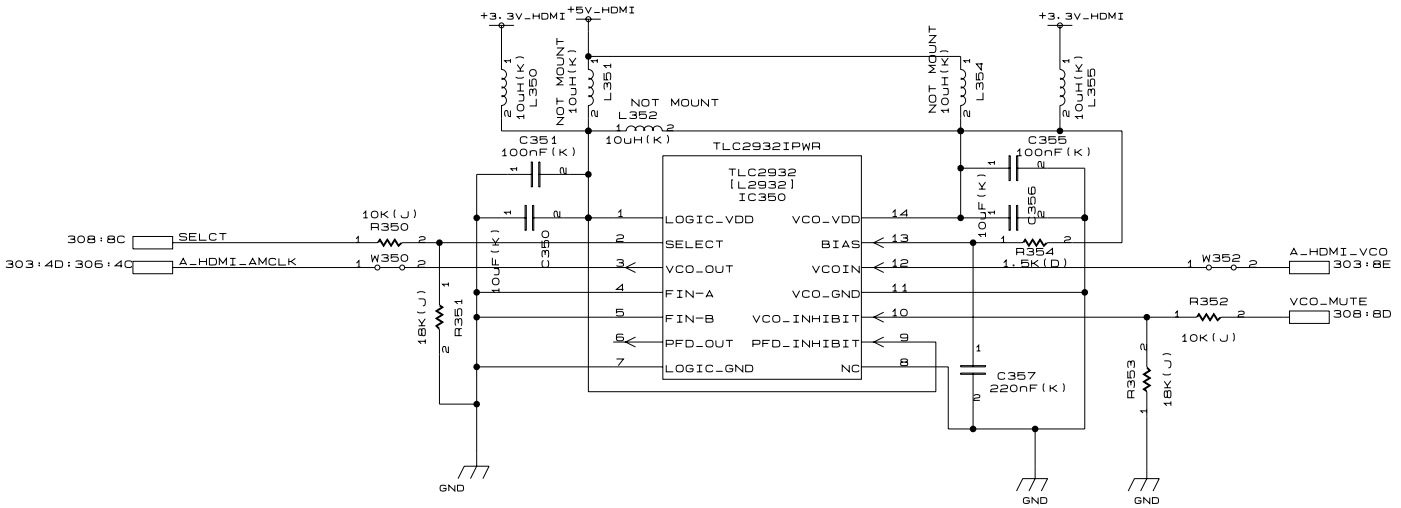
37HLX95
SIGNAL
HDMI Rx#2 (Video/Audio)

SH. NO.
303



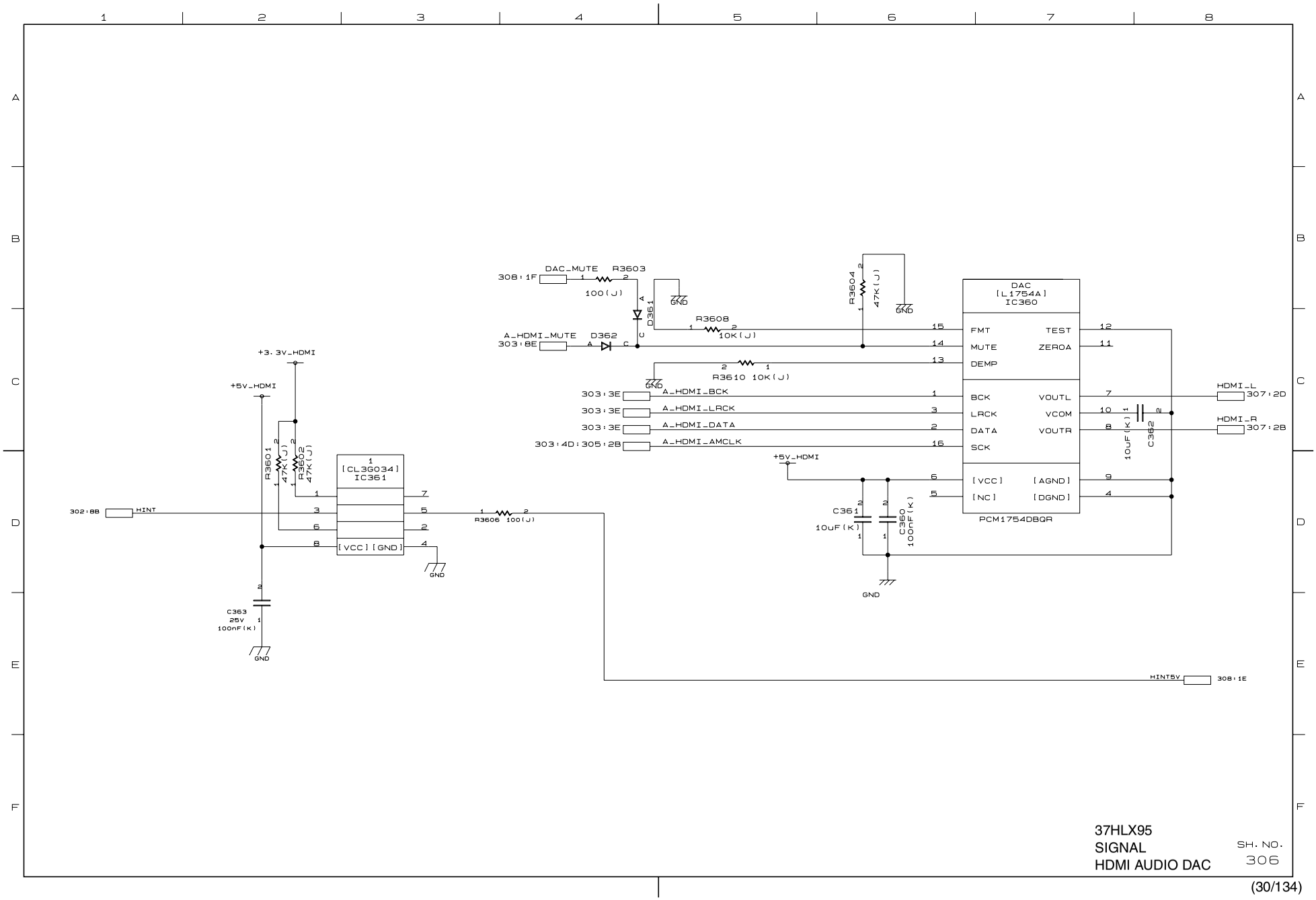
37HLX95
SIGNAL
HDMI Rx#3 (PWR,Audio)

SH. NO.
304



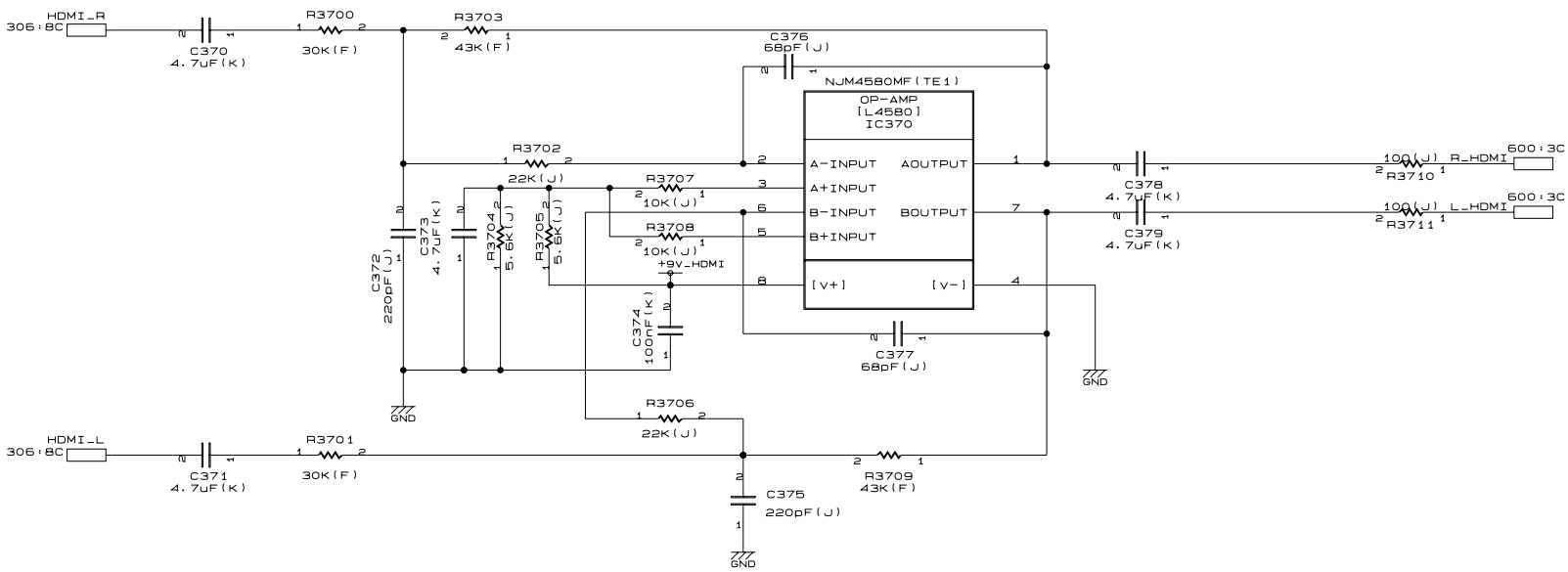
37HLX95
SIGNAL
HDMI AUDIO PLL

SH. NO.
305



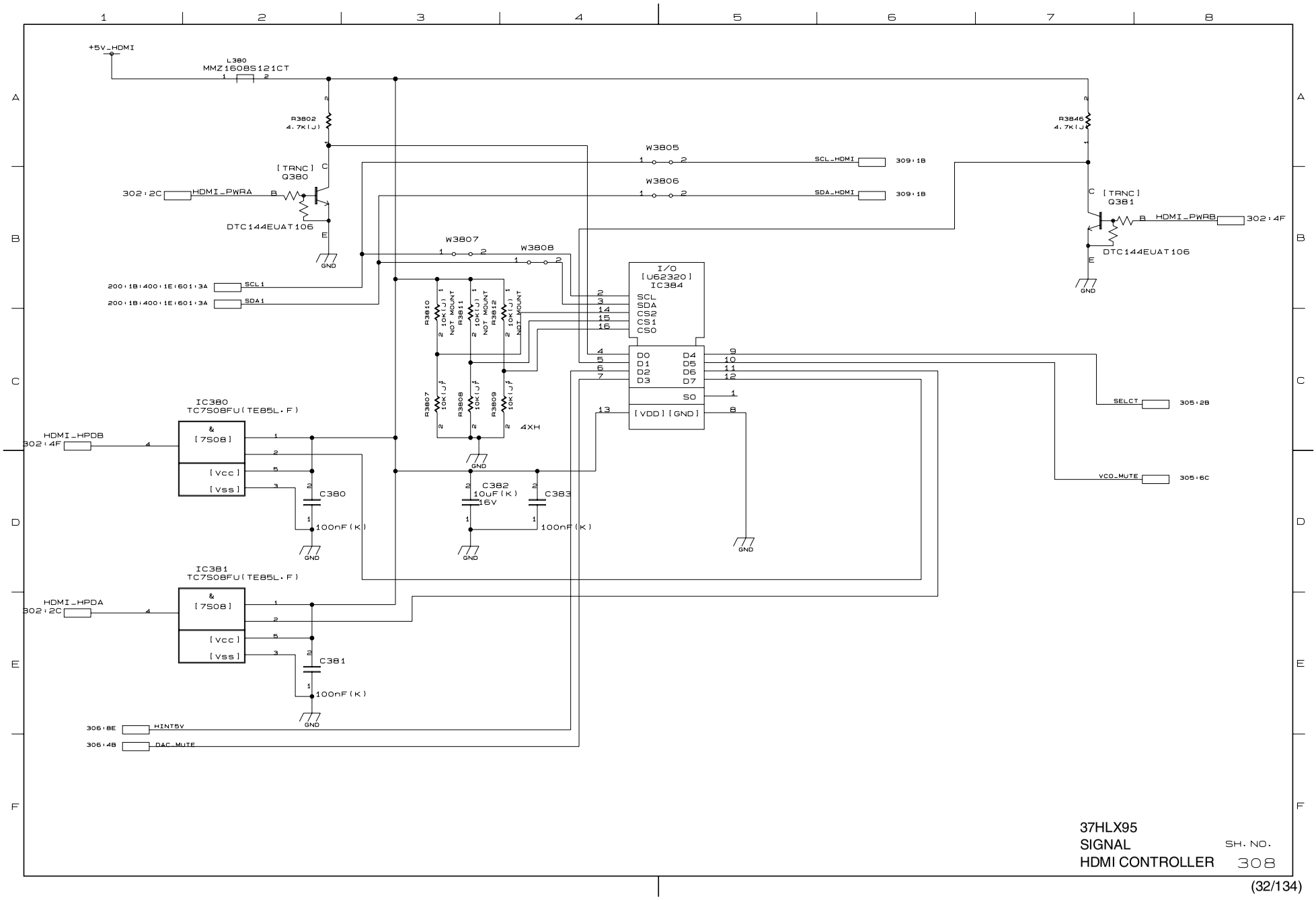
37HLX95
SIGNAL
HDMI AUDIO DAC

SH. NO.
306



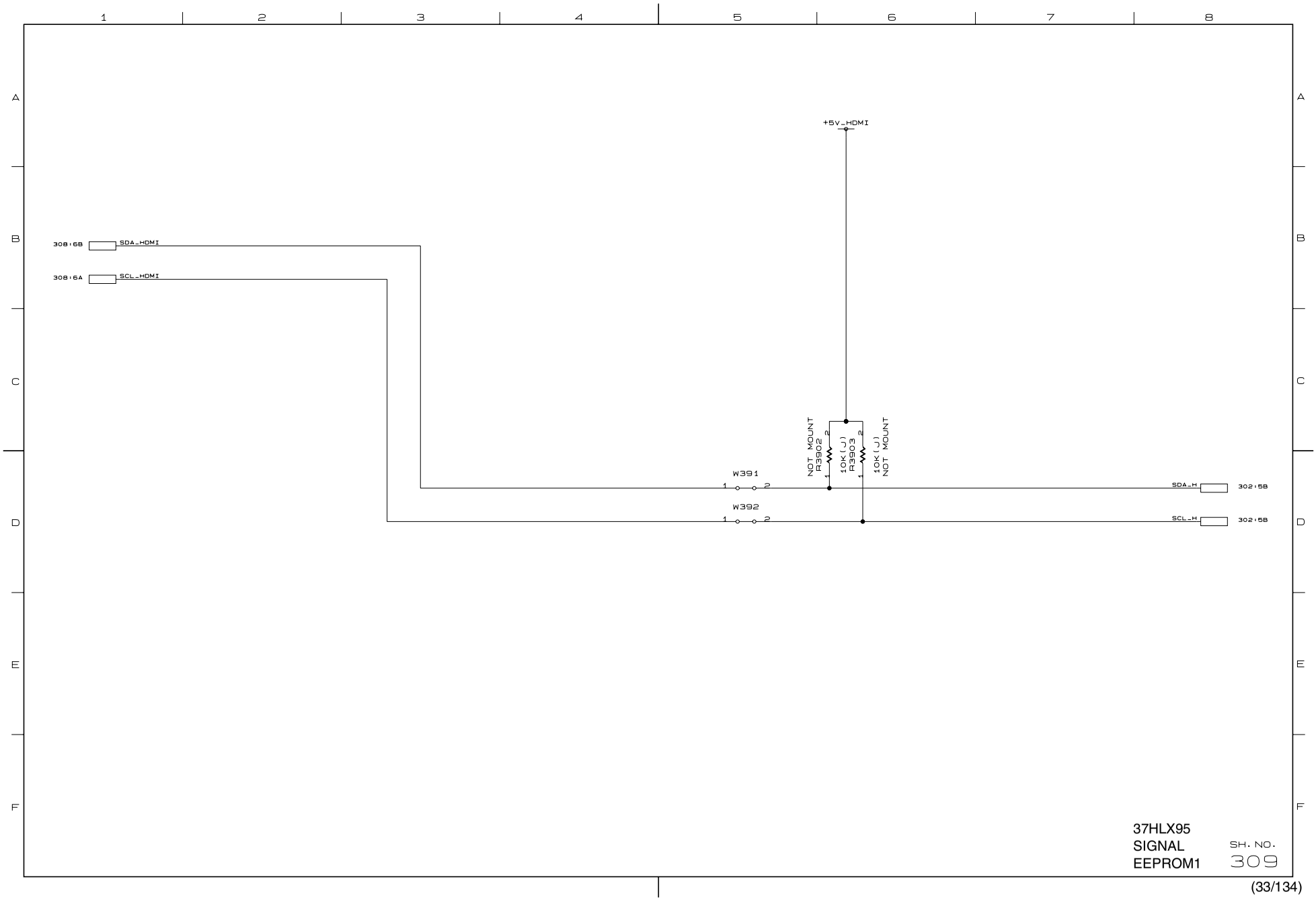
37HLX95
SIGNAL
HDMI AUDIO OUT

SH. NO.
307



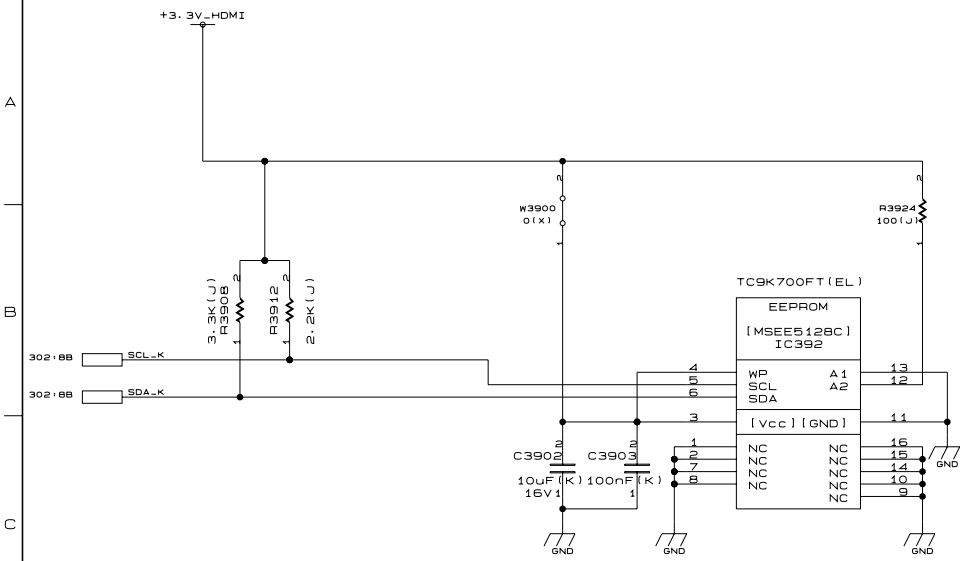
37HLX95
SIGNAL
HDMI CONTROLLER

SH. NO.
308



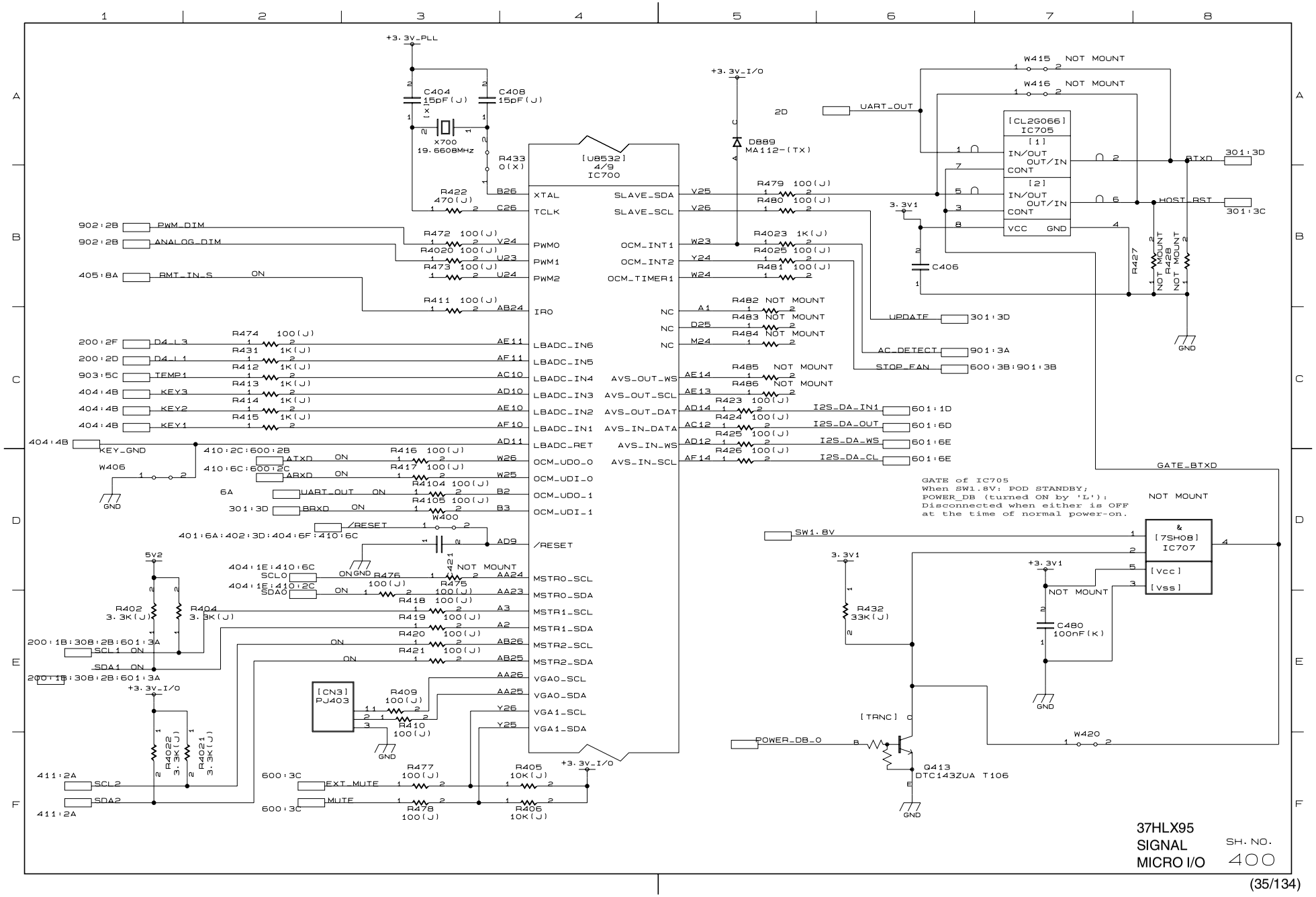
37HLX95
SIGNAL
EEPROM1

SH. NO.
309



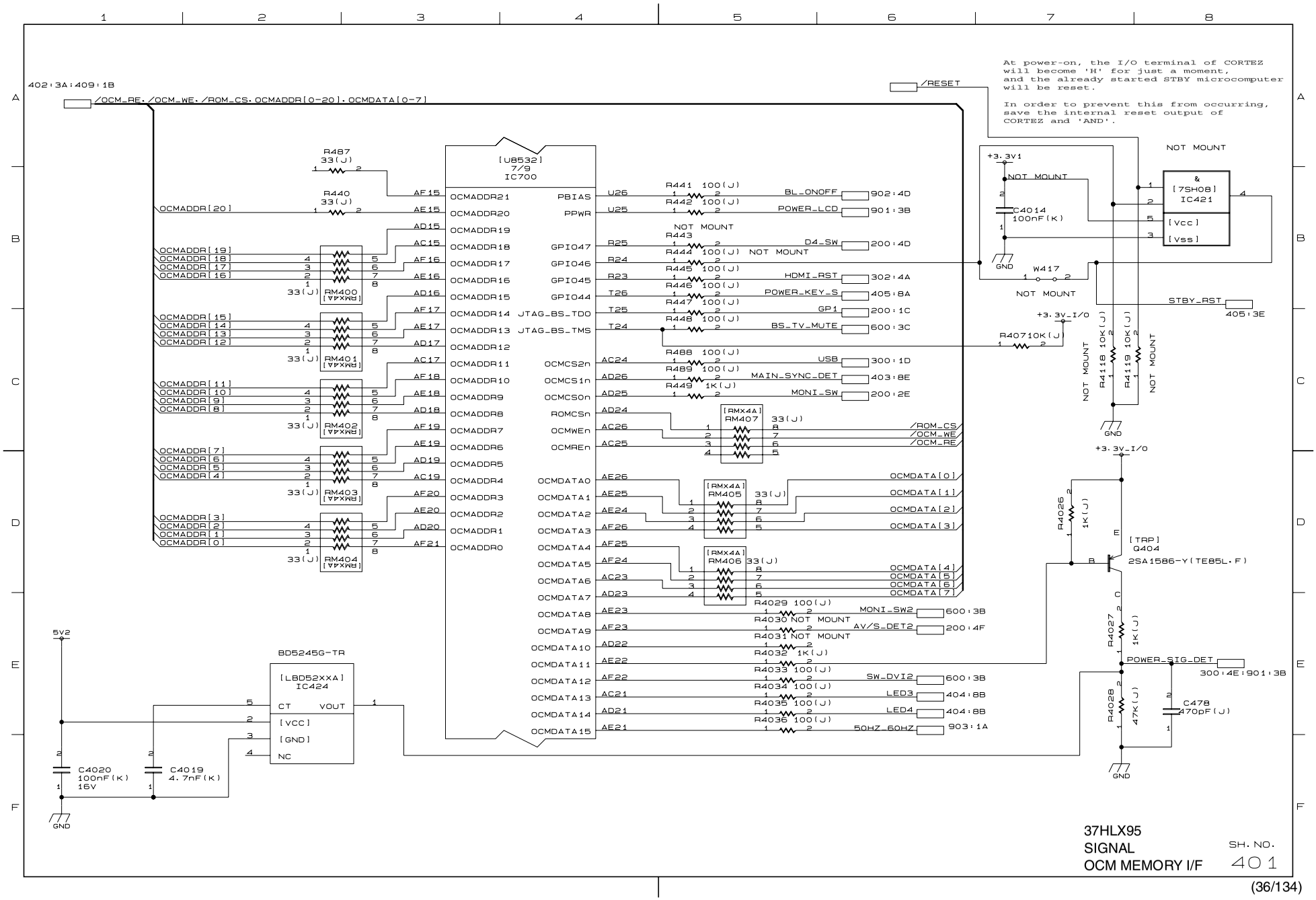
37HLX95
SIGNAL
EEPROM2

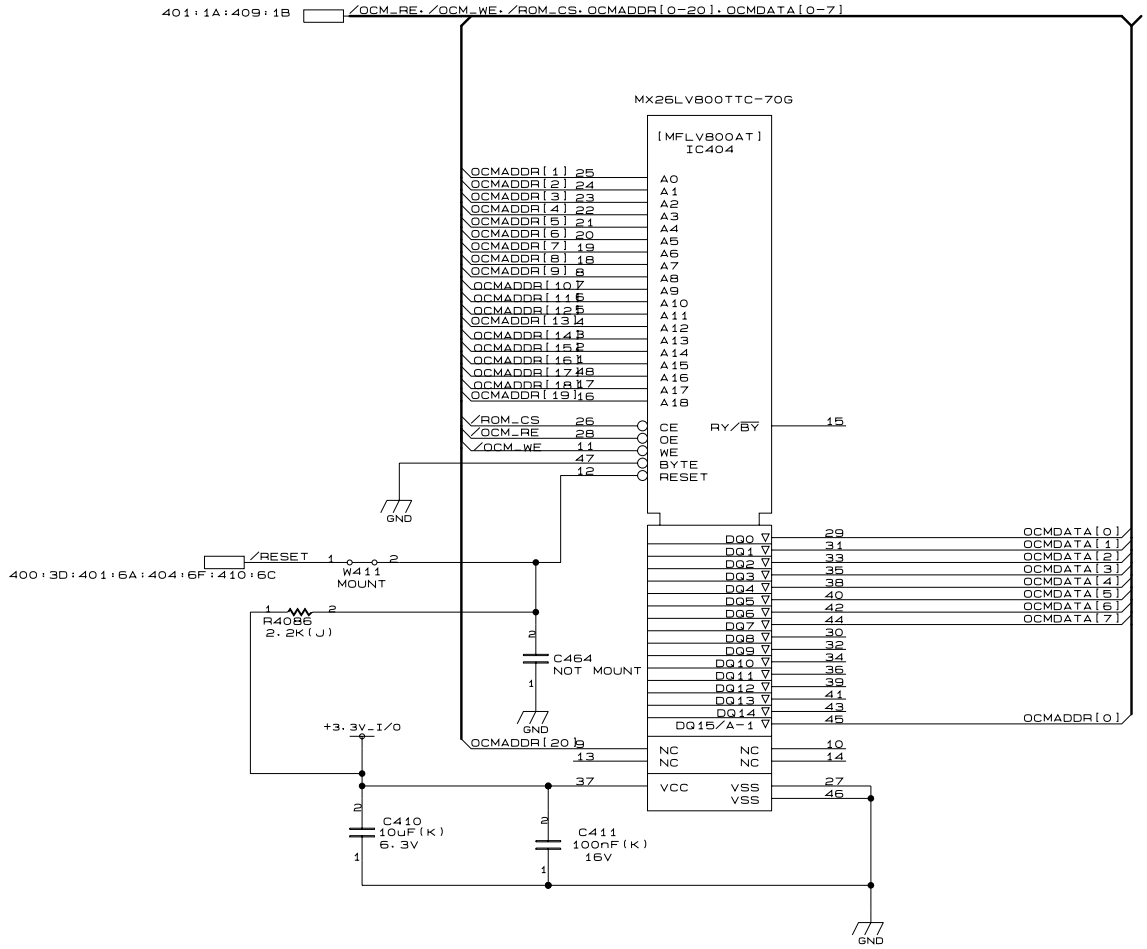
SH. NO.
310



37HLX95
SIGNAL
MICRO I/O

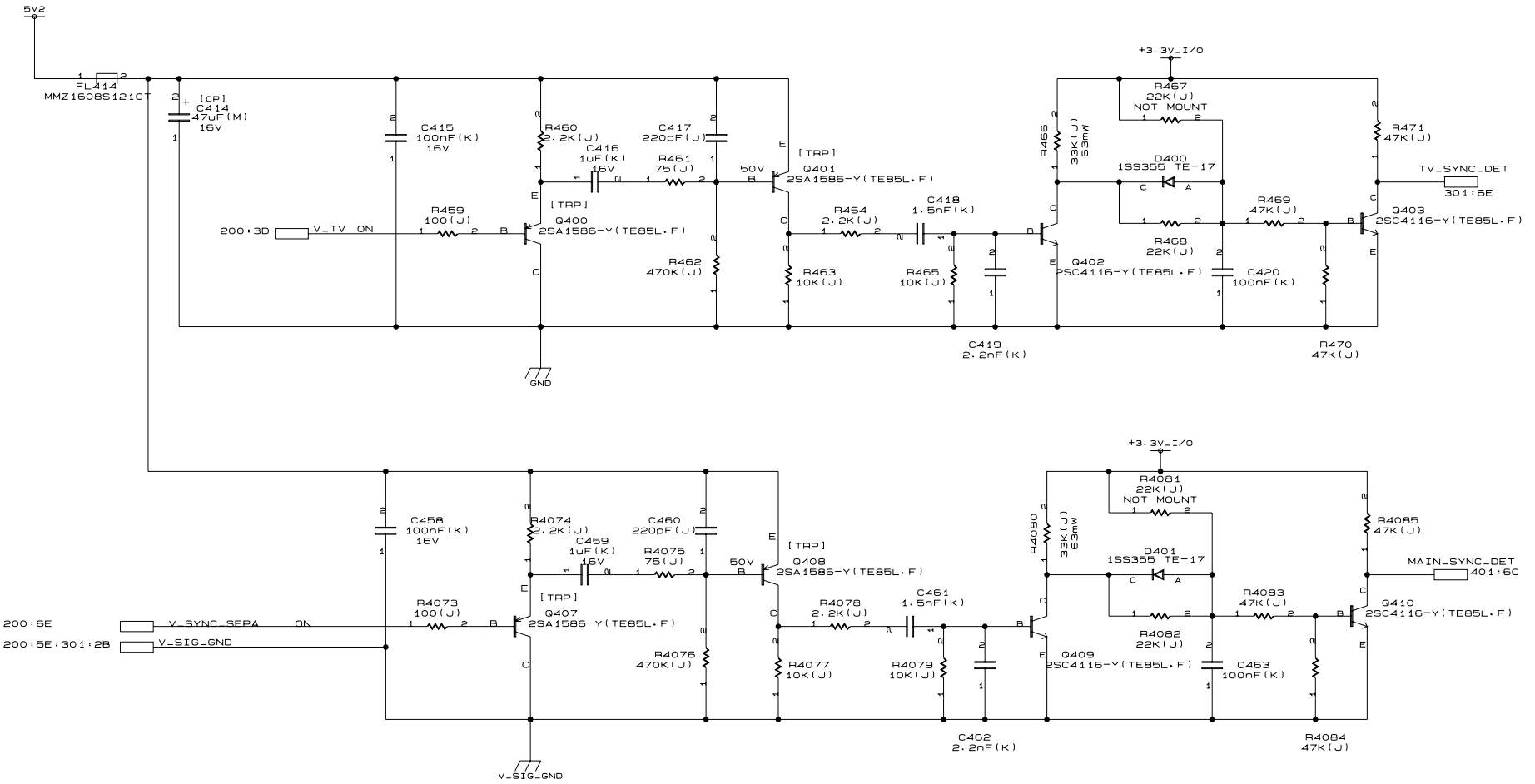
SH. NO.
400


402:3A:409:1B
/OCM_RE./OCM_WE./ROM_CS.OCMADDR[0-20].OCMDATA[0-7]
/RESET
At power-on, the I/O terminal of CORTEZ will become 'H' for just a moment, and the already started STBY microcomputer will be reset.
In order to prevent this from occurring, save the internal reset output of CORTEZ and 'AND'.
[U8532] 7/9 IC700
R487 33(J)
R440 33(J)
OCMADDR[20]
OCMADDR[19]
OCMADDR[18]
OCMADDR[17]
OCMADDR[16]
RM400
OCMADDR[15]
OCMADDR[14]
OCMADDR[13]
OCMADDR[12]
RM401
OCMADDR[11]
OCMADDR[10]
OCMADDR[9]
OCMADDR[8]
RM402
OCMADDR[7]
OCMADDR[6]
OCMADDR[5]
OCMADDR[4]
RM403
OCMADDR[3]
OCMADDR[2]
OCMADDR[1]
OCMADDR[0]
RM404
AF15 OCMADDR21
AE15 OCMADDR20
AD15 OCMADDR19
AC15 OCMADDR18
AF16 OCMADDR17
AE16 OCMADDR16
AD16 OCMADDR15
AF17 OCMADDR14
AE17 OCMADDR13
AD17 OCMADDR12
AC17 OCMADDR11
AF18 OCMADDR10
AE18 OCMADDR9
AD18 OCMADDR8
AF19 OCMADDR7
AE19 OCMADDR6
AD19 OCMADDR5
AC19 OCMADDR4
AF20 OCMADDR3
AE20 OCMADDR2
AD20 OCMADDR1
AF21 OCMADDR0
PBIAS
PPWR
GPIO47
GPIO46
GPIO45
GPIO44
JTAG_BS_TDO
JTAG_BS_TMS
OCMCS2n
OCMCS1n
OCMCS0n
ROMCSn
OCMWEn
OCMREn
OCMDATA0
OCMDATA1
OCMDATA2
OCMDATA3
OCMDATA4
OCMDATA5
OCMDATA6
OCMDATA7
OCMDATA8
OCMDATA9
OCMDATA10
OCMDATA11
OCMDATA12
OCMDATA13
OCMDATA14
OCMDATA15
U26 R441 100(J) BL_ONOFF 902:4D
U25 R442 100(J) POWER_LCD 901:3B
R443 NOT MOUNT
R25 R444 100(J) NOT MOUNT D4_SW 200:4D
R24 R445 100(J) HDMI_RST 302:4A
R23 R446 100(J) POWER_KEY_S 405:8A
T26 R447 100(J) GP1 200:1C
T25 R448 100(J) BS_TV_MUTE 600:3C
T24
AC24 R488 100(J) USB 300:1D
AD26 R489 100(J) MAIN_SYNC_DET 403:8E
AD25 R449 1K(J) MONI_SW 200:2E
AD24
AC26
AC25
[RMX4A] RM407 33(J) /ROM_CS /OCM_WE /OCM_RE
[RMX4A] RM405 33(J) OCMDATA[0] OCMDATA[1] OCMDATA[2] OCMDATA[3]
[RMX4A] RM406 33(J) OCMDATA[4] OCMDATA[5] OCMDATA[6] OCMDATA[7]
AE26
AE25
AE24
AE26
AF25
AF24
AC23
AD23
AE23 R4029 100(J) MONI_SW2 600:3B
R4030 NOT MOUNT
AF23 R4031 NOT MOUNT AV/S_DET2 200:4F
AD22 R4032 1K(J)
AE22 R4033 100(J)
AF22 R4034 100(J) SW_DVI2 600:3B
AC21 R4035 100(J) LED3 404:8B
AD21 R4036 100(J) LED4 404:8B
AE21 50HZ_60HZ 903:1A
+3.3V1
NOT MOUNT
C4014 100nF(K)
GND
W417
NOT MOUNT
& [7SH08] IC421
[Vcc]
[Vss]
NOT MOUNT
STBY_RST 405:3E
+3.3V_I/O
R4071 0K(J)
R4118 10K(J)
R4119 10K(J)
NOT MOUNT
NOT MOUNT
GND
+3.3V_I/O
R4026 1K(J)
[TRP] Q404 2SA1586-Y(TE85L,F)
R4027 1K(J)
POWER_SIG_DET 300:4E:901:3B
R4028 47K(J)
C478 470pF(J)
GND
5V2
BD5245G-TR
[LBD52XXA] IC424
CT VOUT
[VCC]
[GND]
NC
C4020 100nF(K) 16V
C4019 4.7nF(K)
GND
37HLX95
SIGNAL
OCM MEMORY I/F
SH. NO. 401
(36/134)

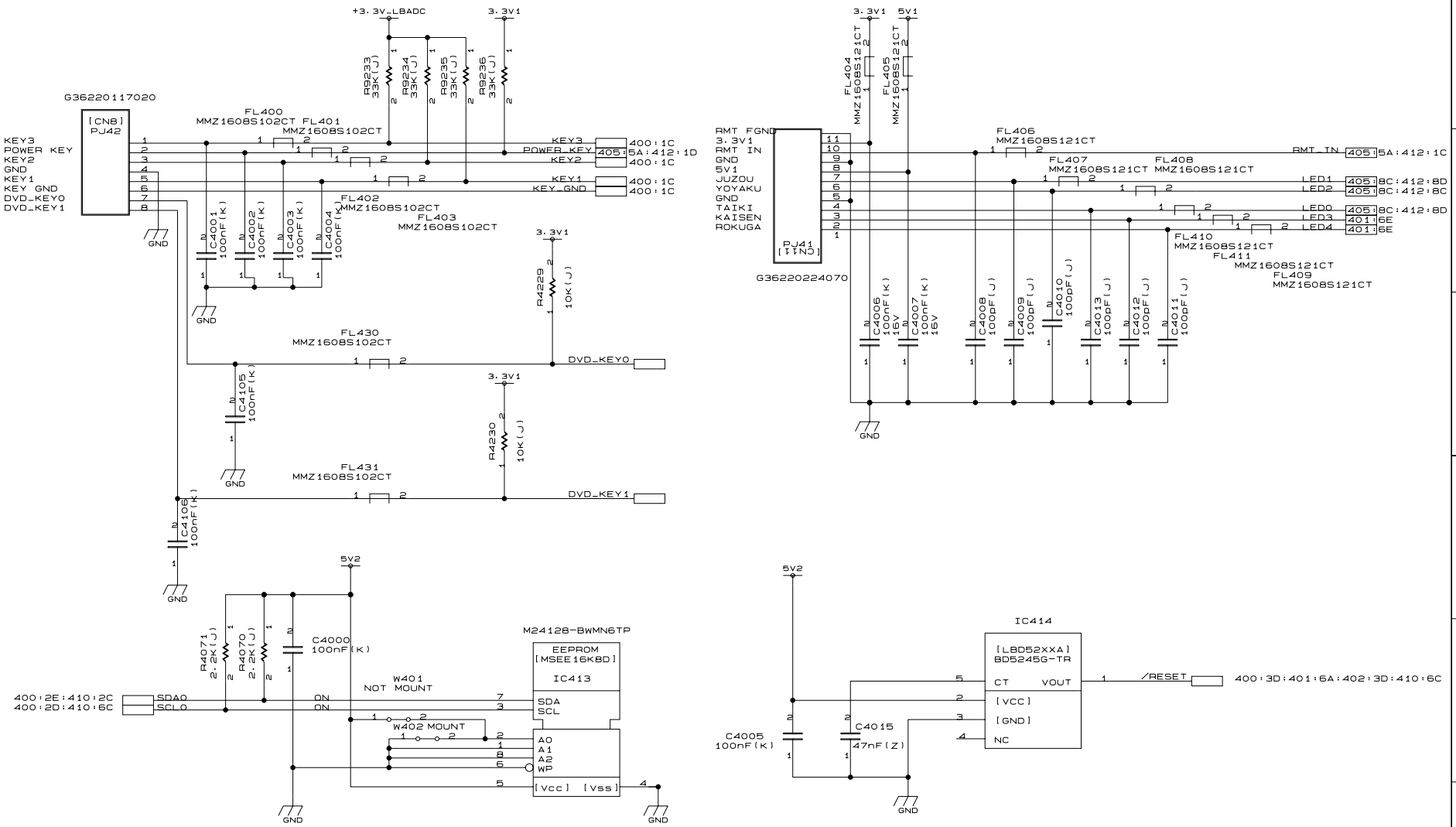


37HLX95
SIGNAL
FLASH MEMORY

SH. NO.
402

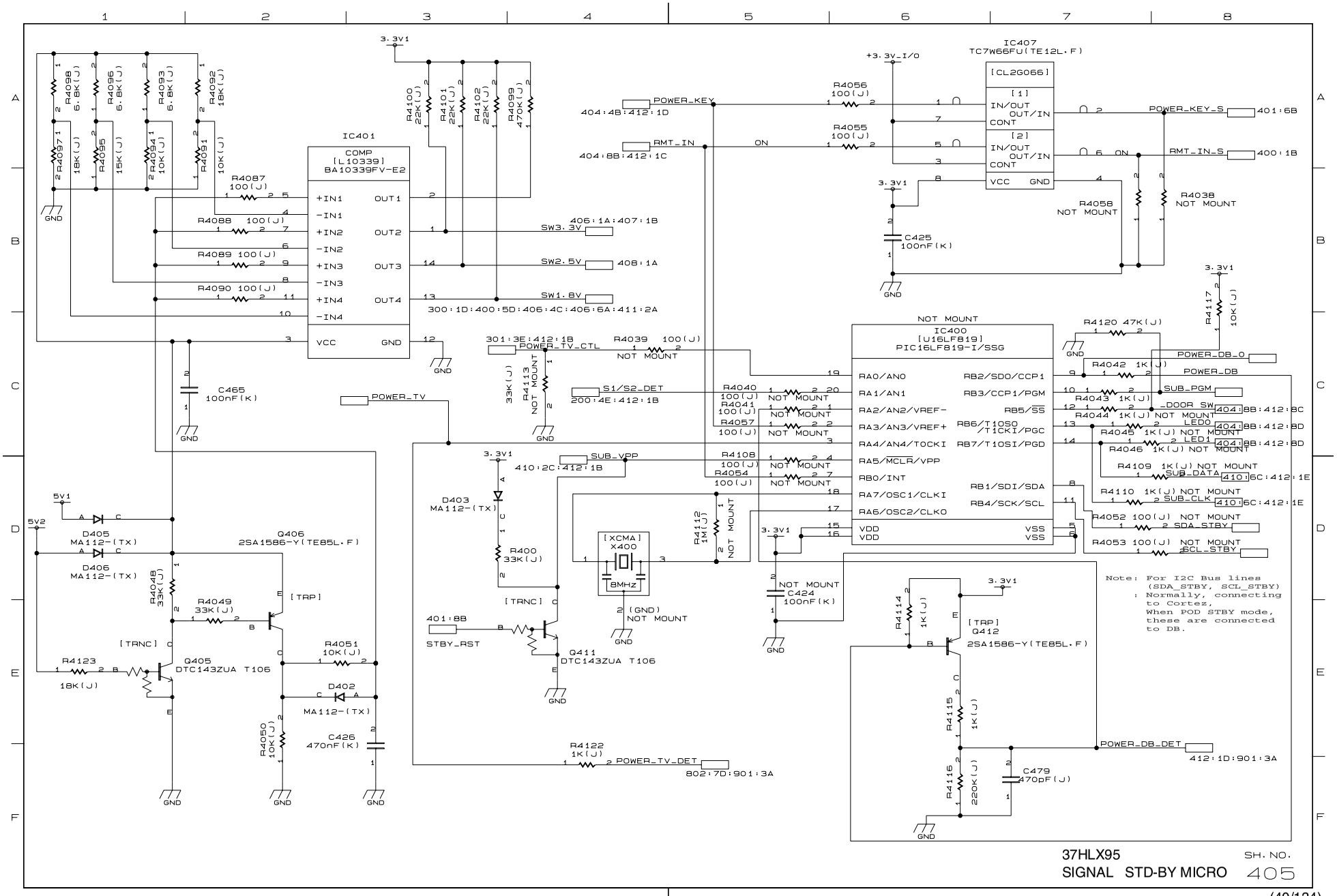


37HLX95
SIGNAL SYNC SEPA
SH. NO. 403



37HLX95
SIGNAL
E2P OTHER

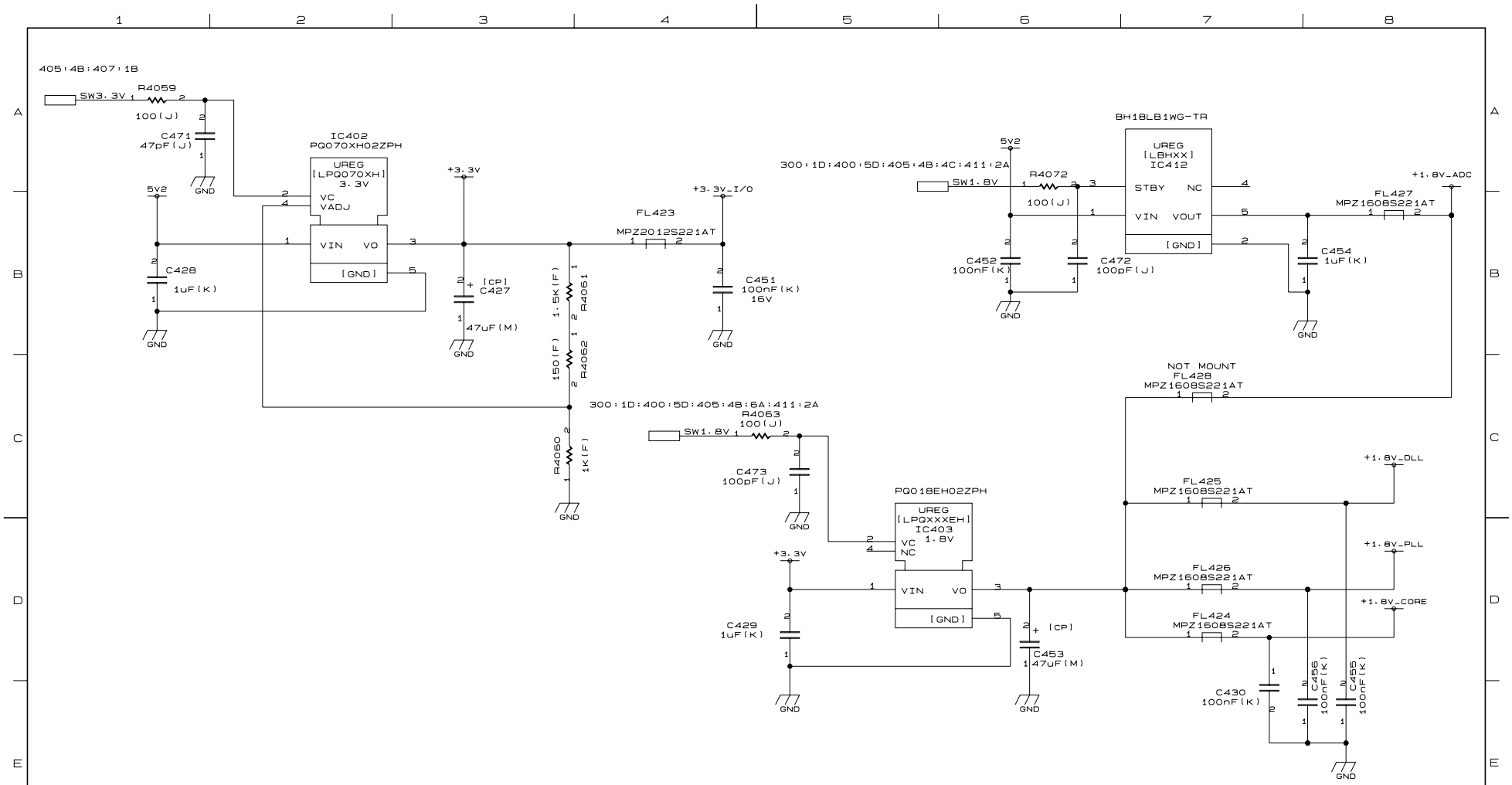
SH. NO.
404



37HLX95

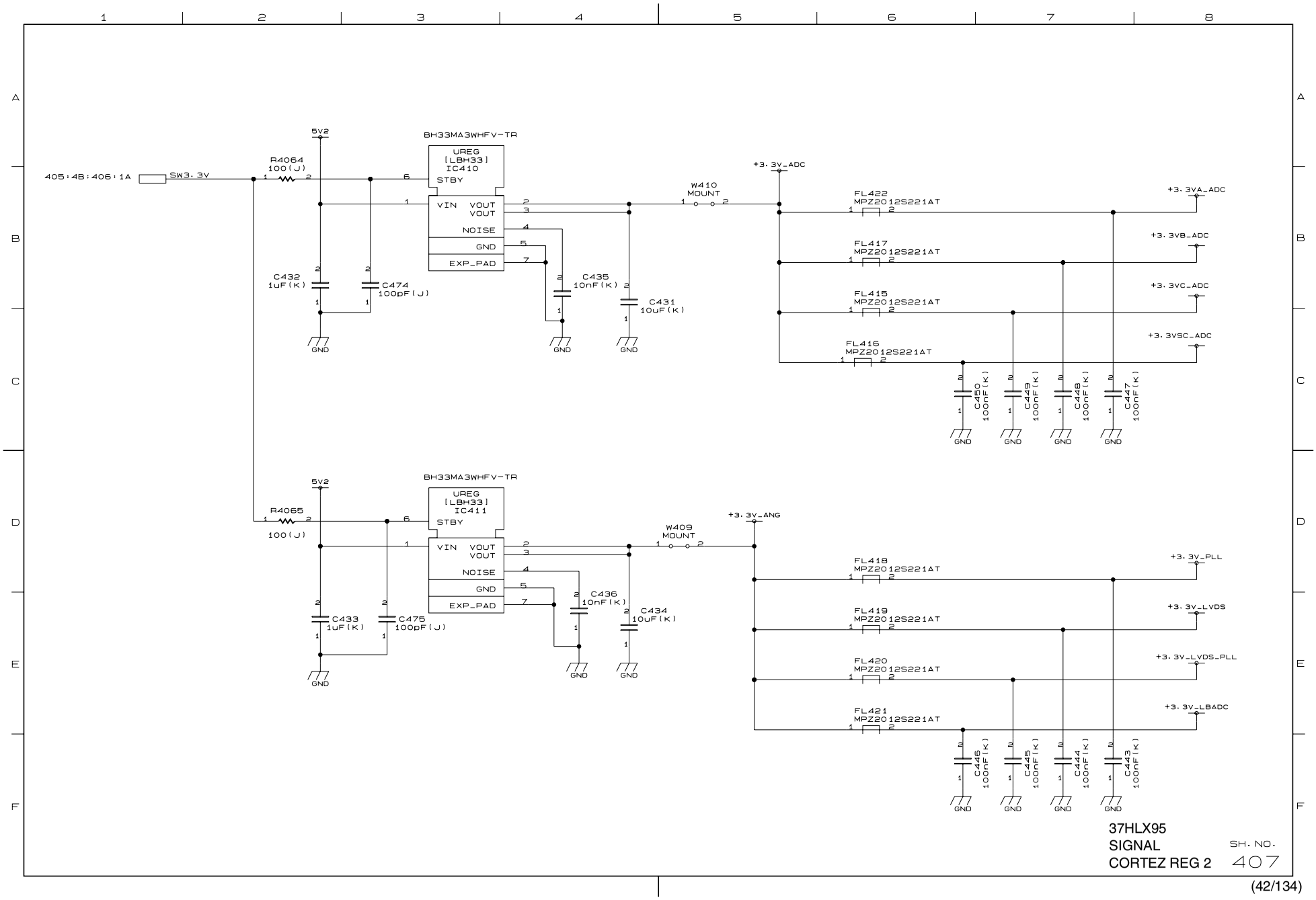
SIGNAL STD-BY MICRO

SH. NO. 405



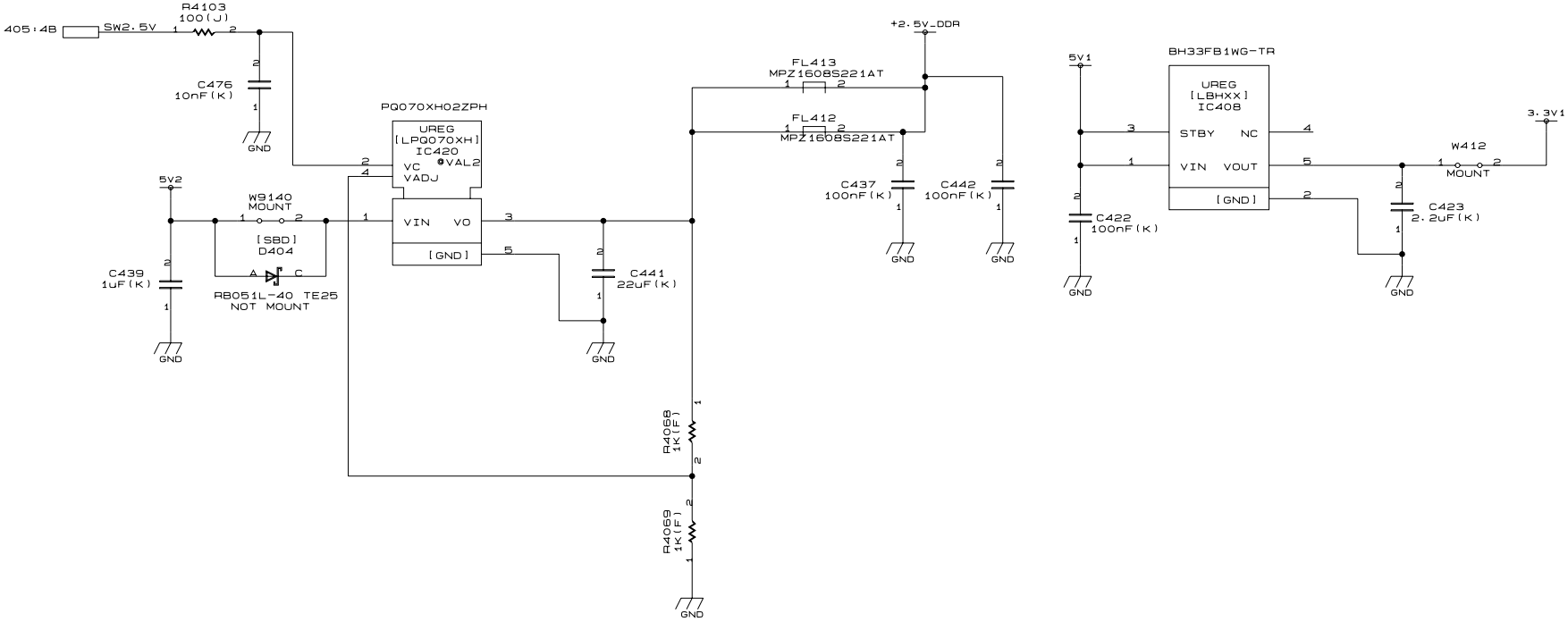
37HLX95
SIGNAL
CORTEZ REG 1

SH. NO.
406



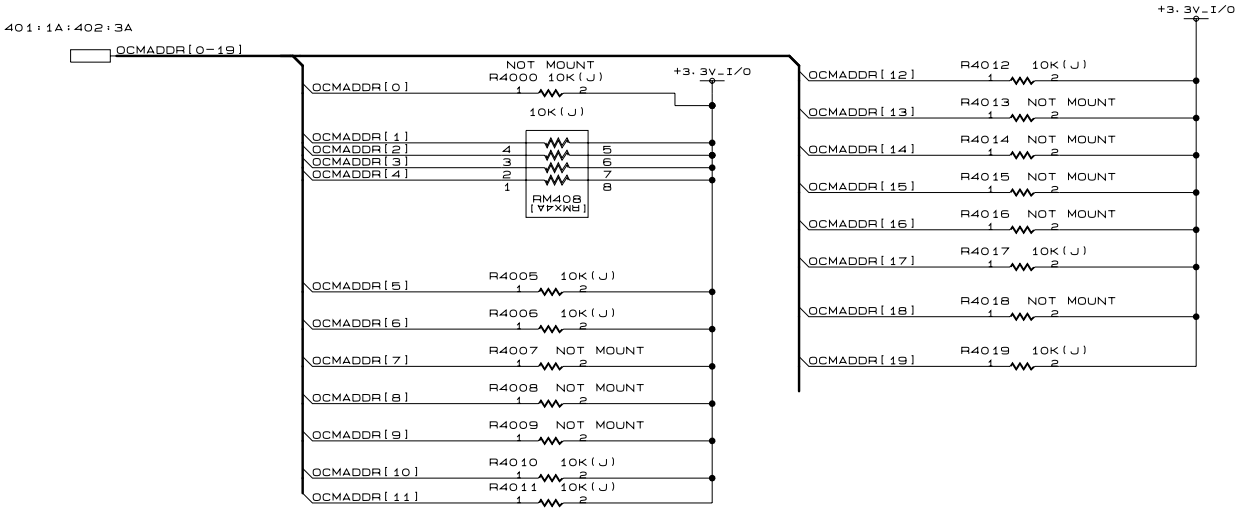
37HLX95
SIGNAL
CORTEZ REG 2

SH. NO.
407



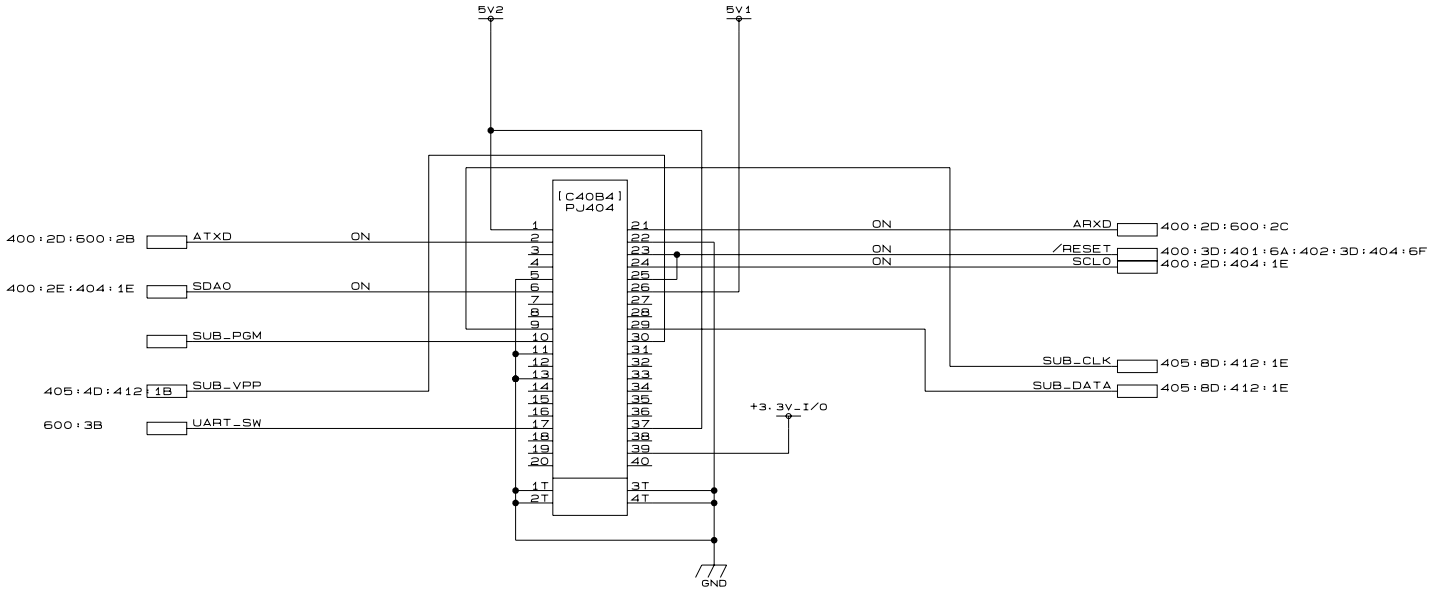
37HLX95
SIGNAL
CORTEZ REG 3

SH. NO.
408



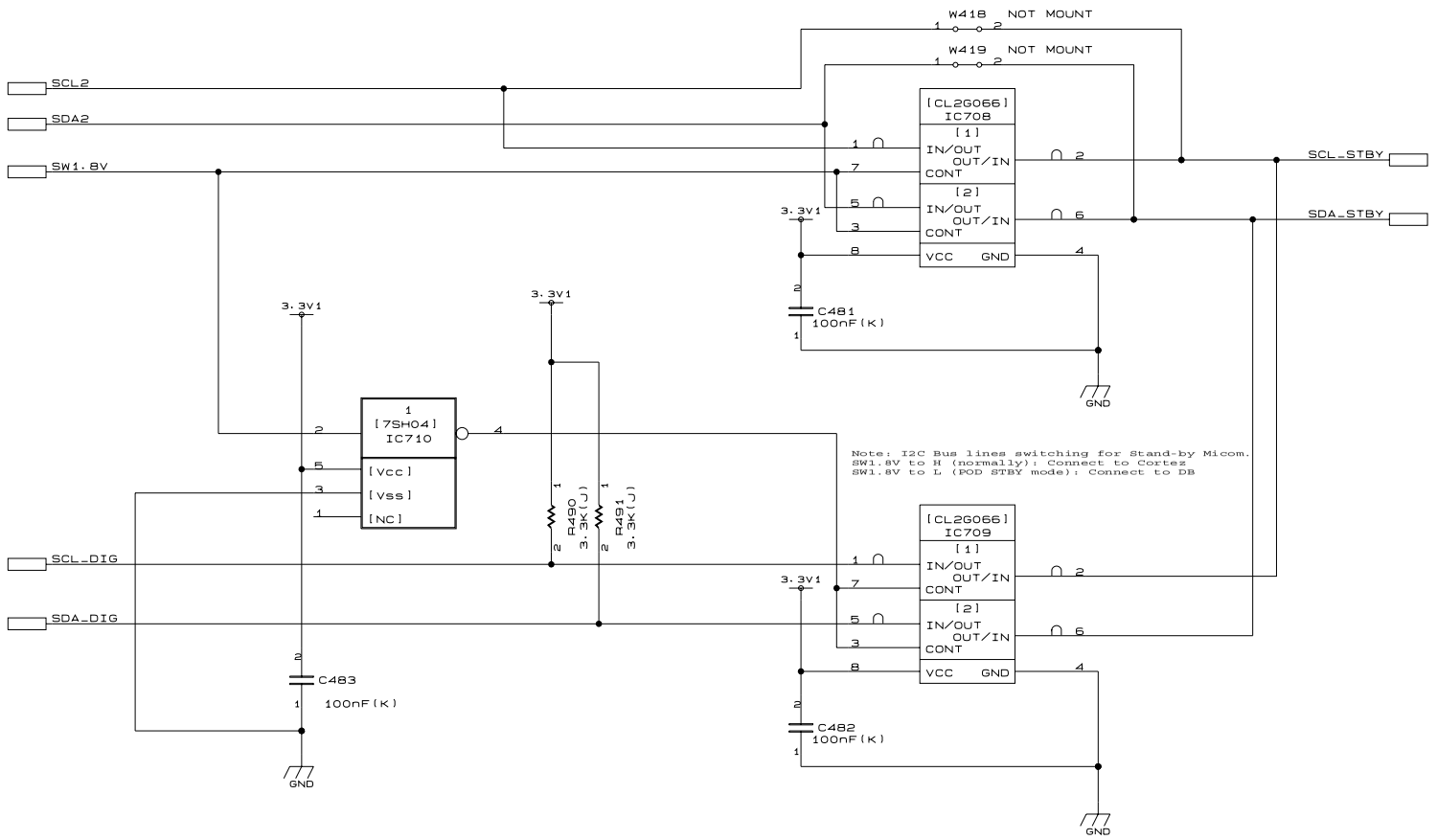
37HLX95
SIGNAL
BOOT CONFIG

SH. NO.
409



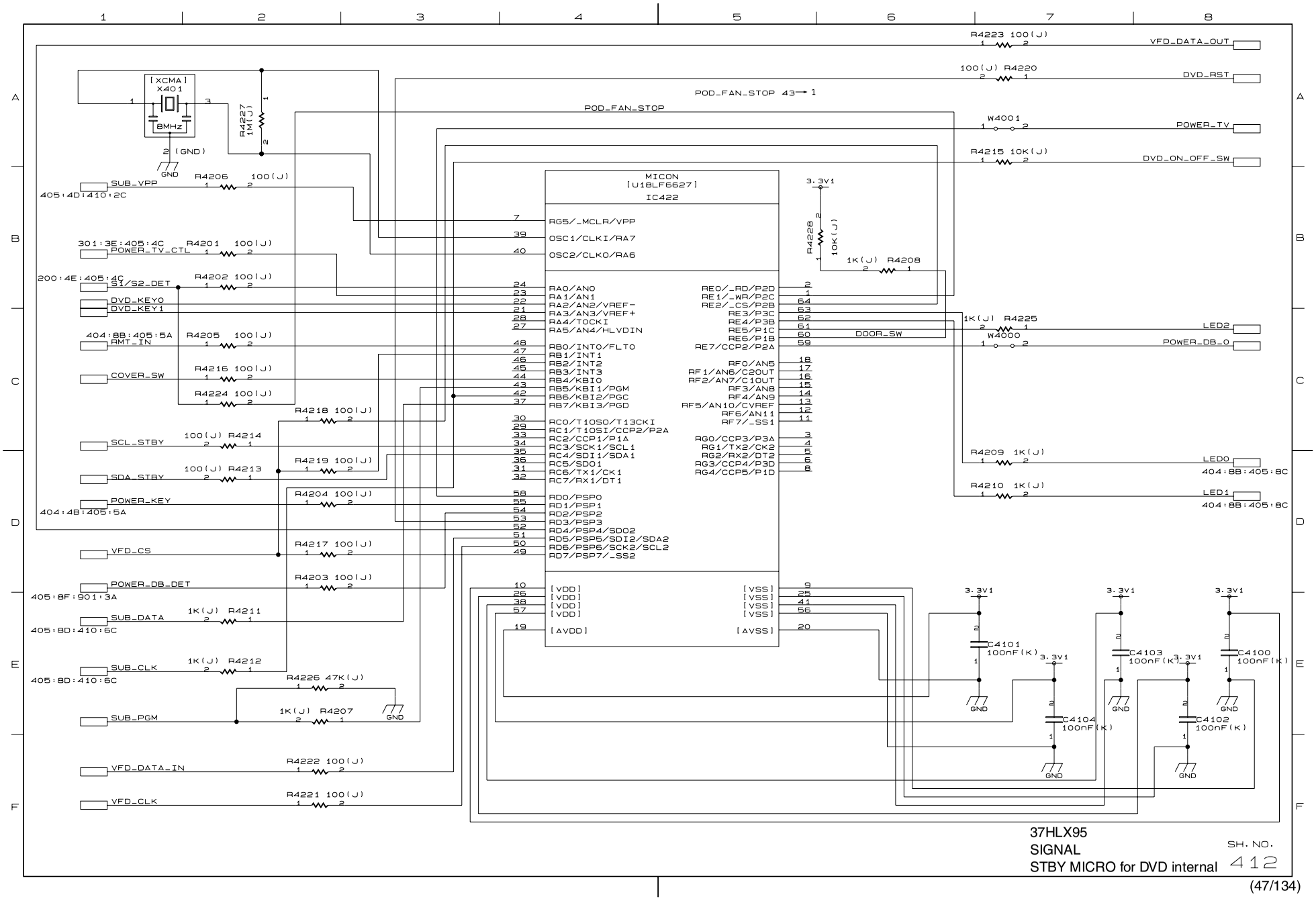
37HLX95
SIGNAL
SERVICE CONNECTOR

SH. NO.
410



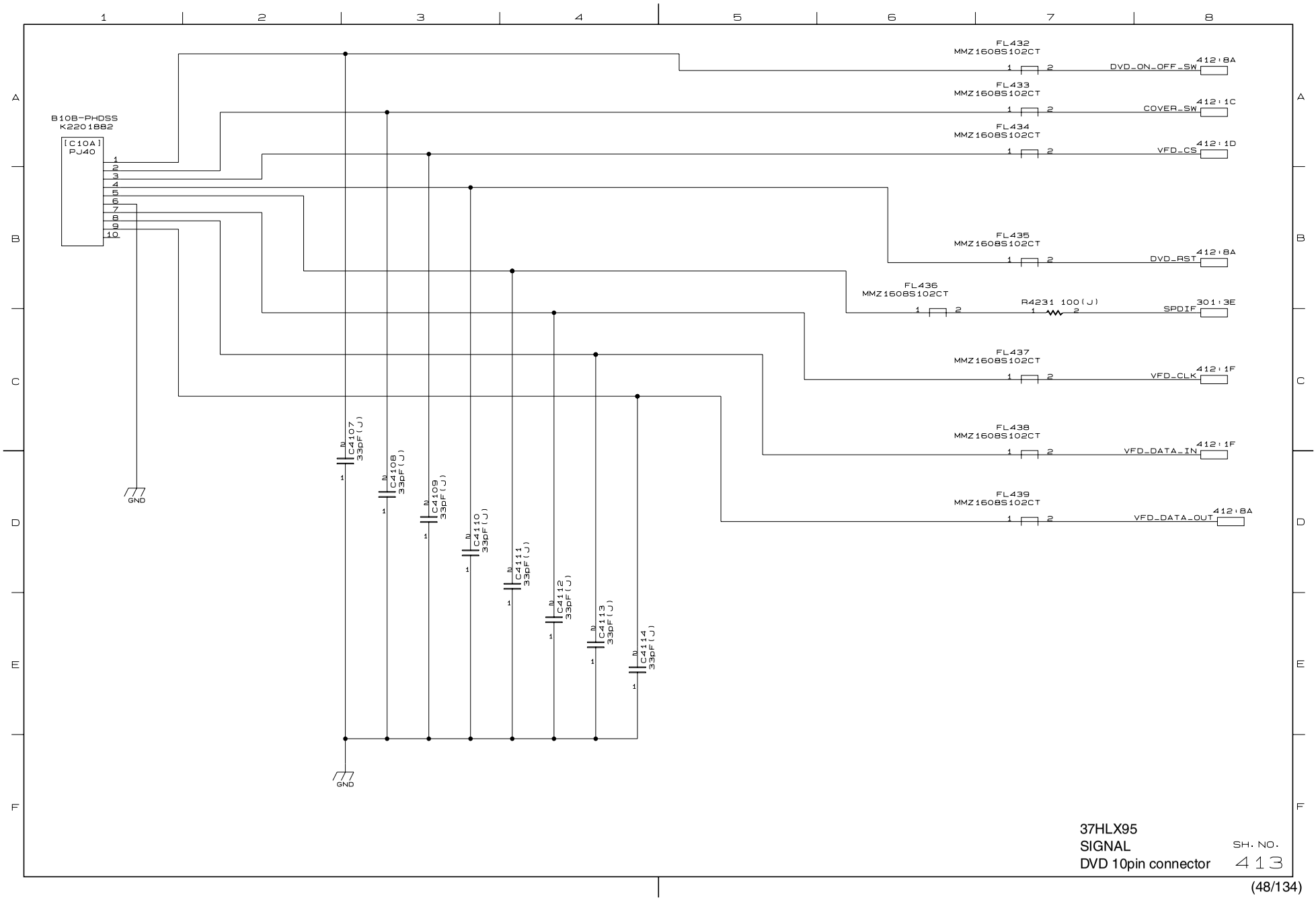
37HLX95
SIGNAL
I2C Switch

SH. NO.
411



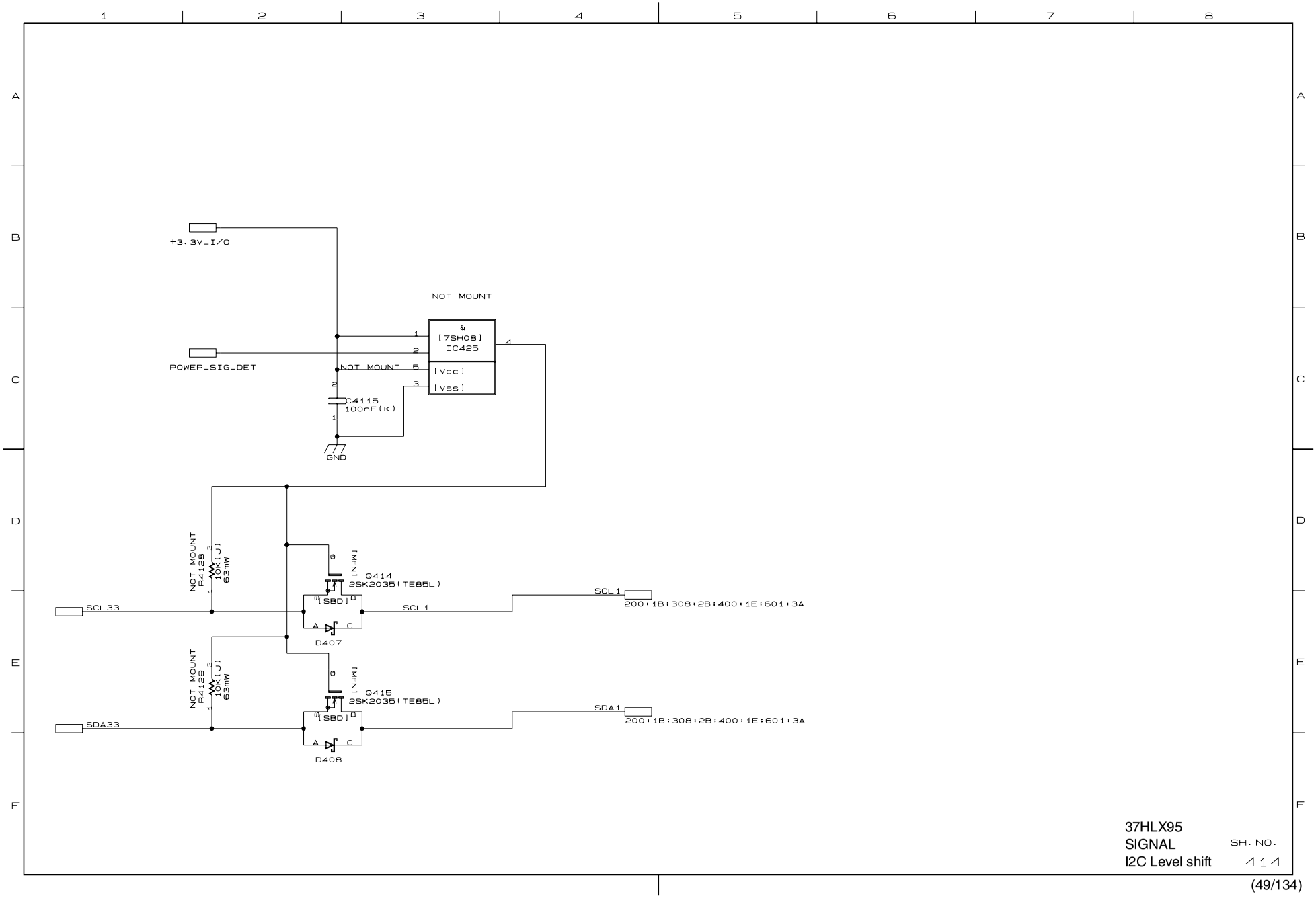
37HLX95
SIGNAL
STBY MICRO for DVD internal

SH. NO.
412



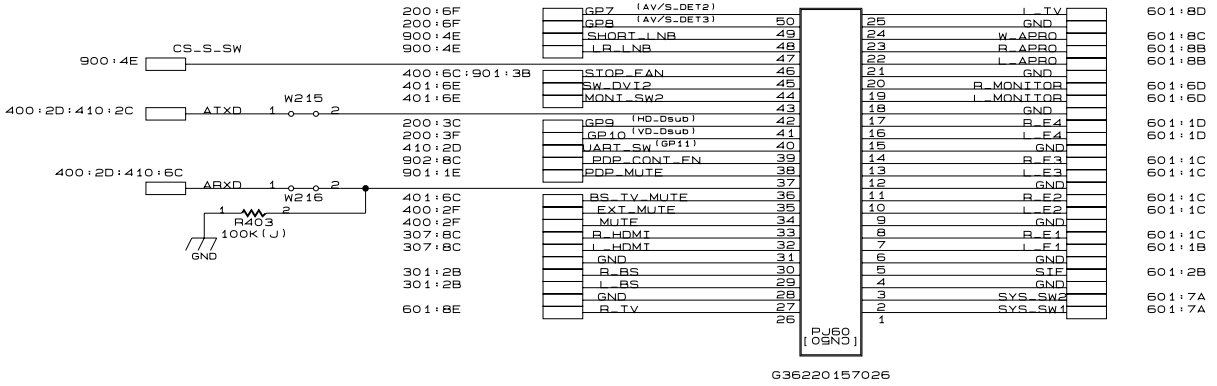
37HLX95
SIGNAL
DVD 10pin connector

SH. NO.
413



37HLX95
SIGNAL
I2C Level shift

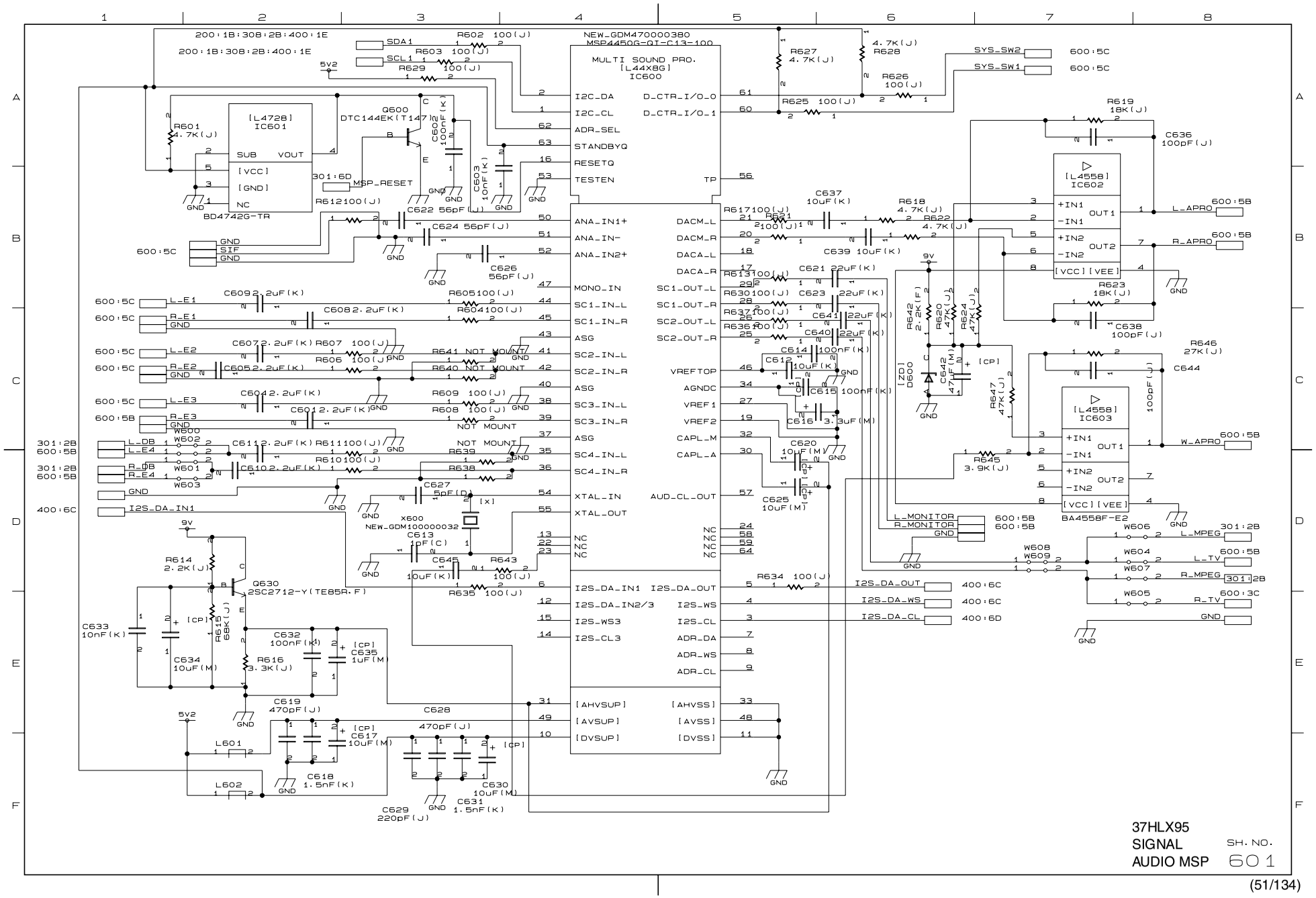
SH. NO.
414

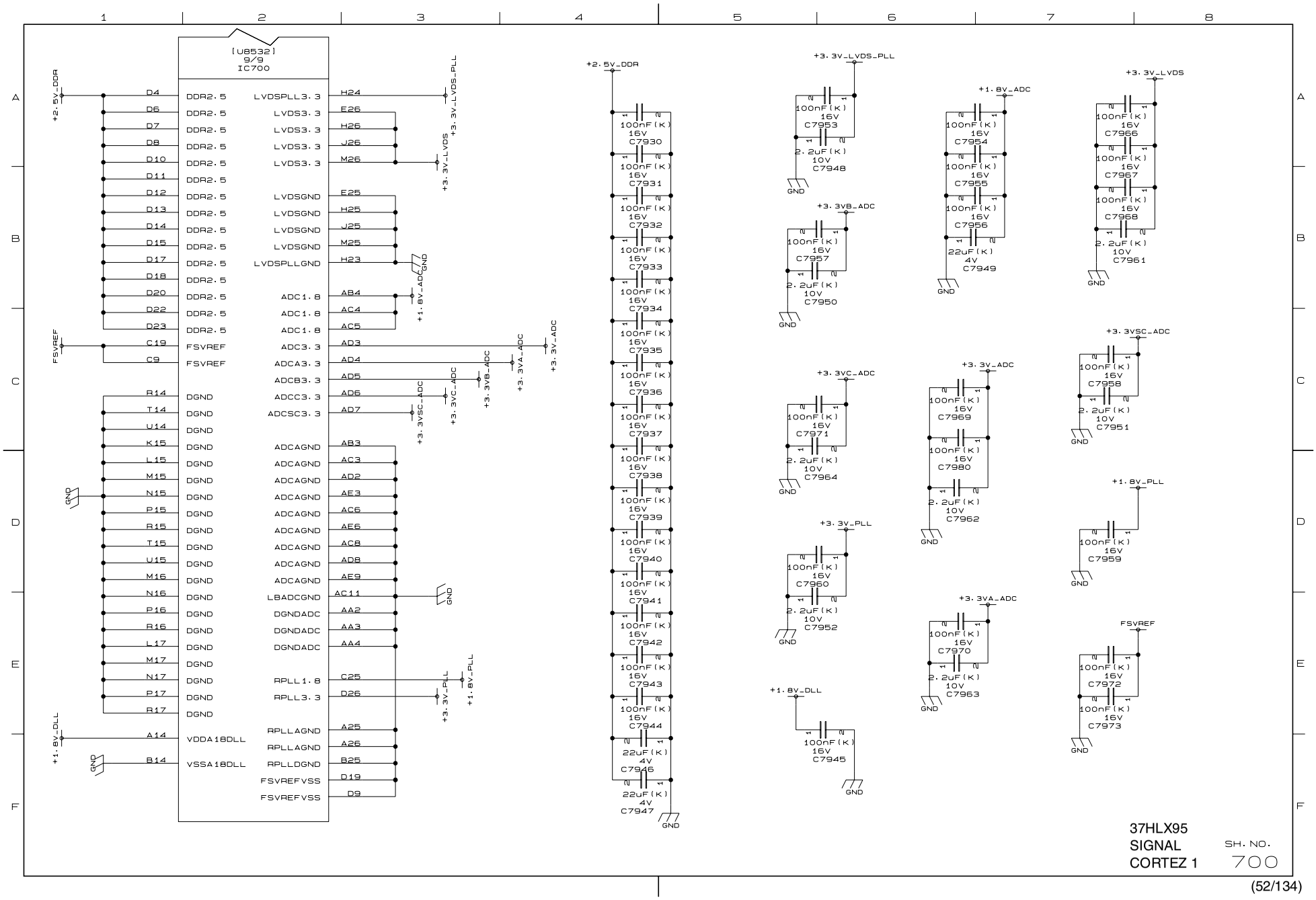


G36220157026

37HLX95
SIGNAL
AUDIO

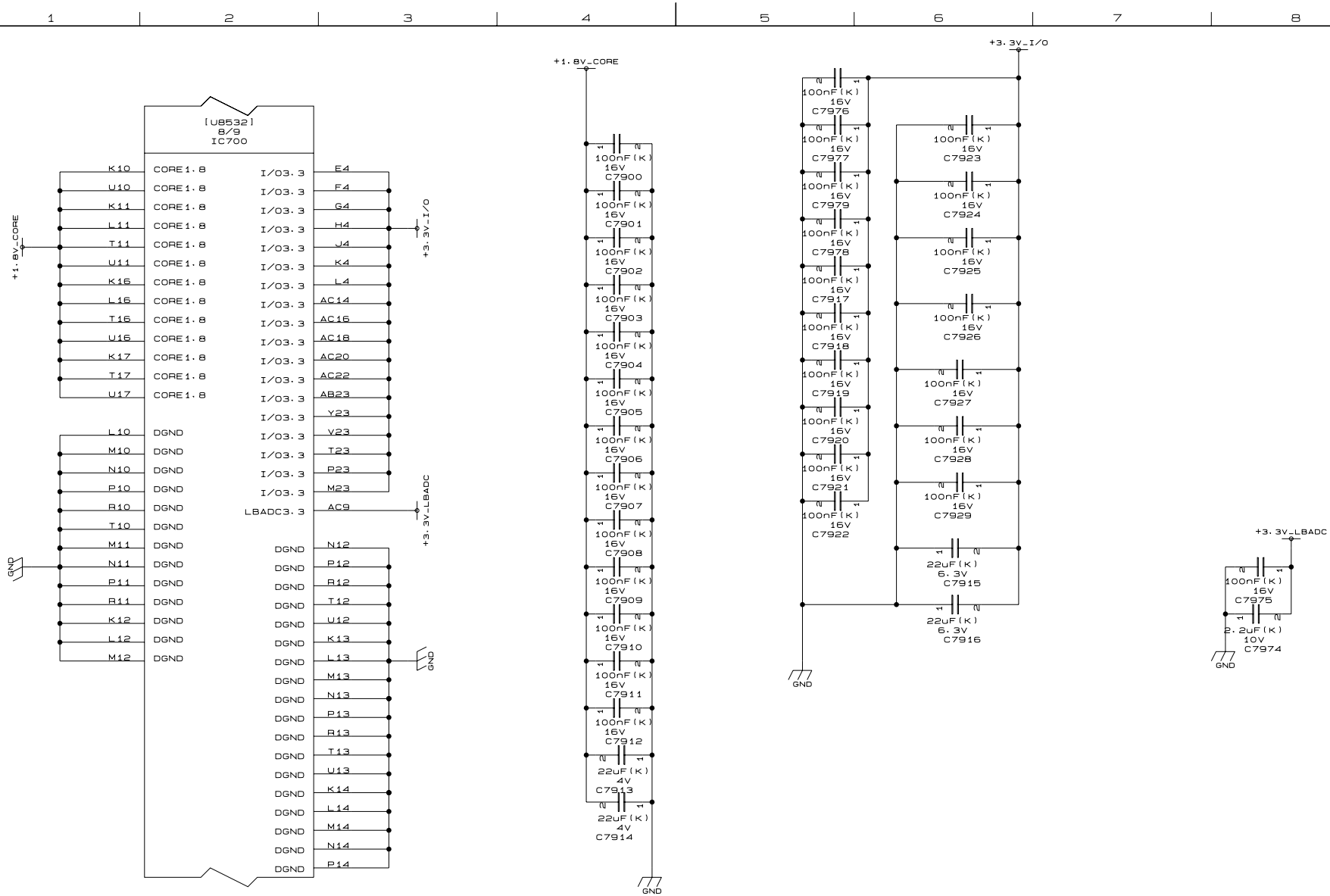
SH. NO.
600


NEW_GDM470000380
MSP4450G-QI-C13-100
MULTI SOUND PRO.
[L44X8G]
IC600
I2C_DA
I2C_CL
ADR_SEL
STANDBYQ
RESETQ
TESTEN
TP
D_CTR_I/O_0
D_CTR_I/O_1
ANA_IN1+
ANA_IN-
ANA_IN2+
MONO_IN
SC1_IN_L
SC1_IN_R
ASG
SC2_IN_L
SC2_IN_R
ASG
SC3_IN_L
SC3_IN_R
ASG
SC4_IN_L
SC4_IN_R
XTAL_IN
XTAL_OUT
NC
I2S_DA_IN1
I2S_DA_IN2/3
I2S_WS3
I2S_CL3
[AHVSUP]
[AVSUP]
[DVSUP]
DACM_L
DACM_R
DACA_L
DACA_R
SC1_OUT_L
SC1_OUT_R
SC2_OUT_L
SC2_OUT_R
VREFTOP
AGNDC
VREF1
VREF2
CAPL_M
CAPL_A
AUD_CL_OUT
I2S_DA_OUT
I2S_WS
I2S_CL
ADR_DA
ADR_WS
ADR_CL
[AHVSS]
[AVSS]
[DVSS]
[L4728]
IC601
SUB
VOUT
[VCC]
[GND]
NC
BD4742G-TR
Q600
DTC144EK(T147)
MSP_RESET
SDA1
SCL1
5V2
9V
SYS_SW2
SYS_SW1
600:5C
L_E1
R_E1
L_E2
R_E2
L_E3
R_E3
L_DB
R_DB
L_E4
R_E4
W600
W601
W602
W603
I2S_DA_IN1
400:6C
301:2B
600:5B
X600
NEW_GDM100000032
Q630
2SC2712-Y(TE85R.F)
L601
L602
[L4558]
IC602
IC603
BA4558BF-E2
L_APRO
R_APRO
W_APRO
L_MONITOR
R_MONITOR
L_MPEG
L_TV
R_MPEG
R_TV
W606
W604
W607
W605
W608
W609
600:3C
GND
37HLX95
SIGNAL
AUDIO MSP
SH. NO.
601
(51/134)



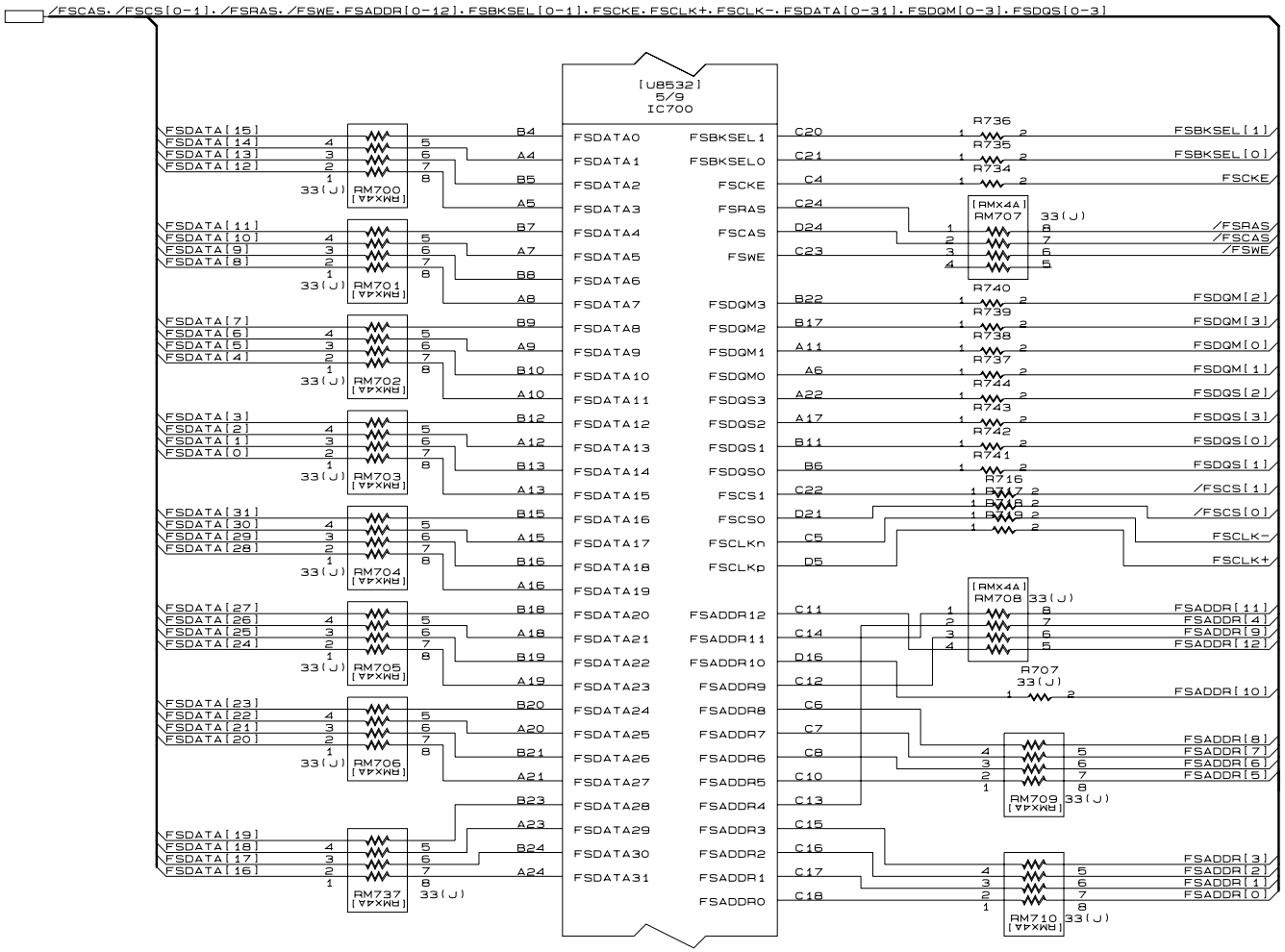
37HLX95
SIGNAL
CORTEZ 1

SH. NO.
700



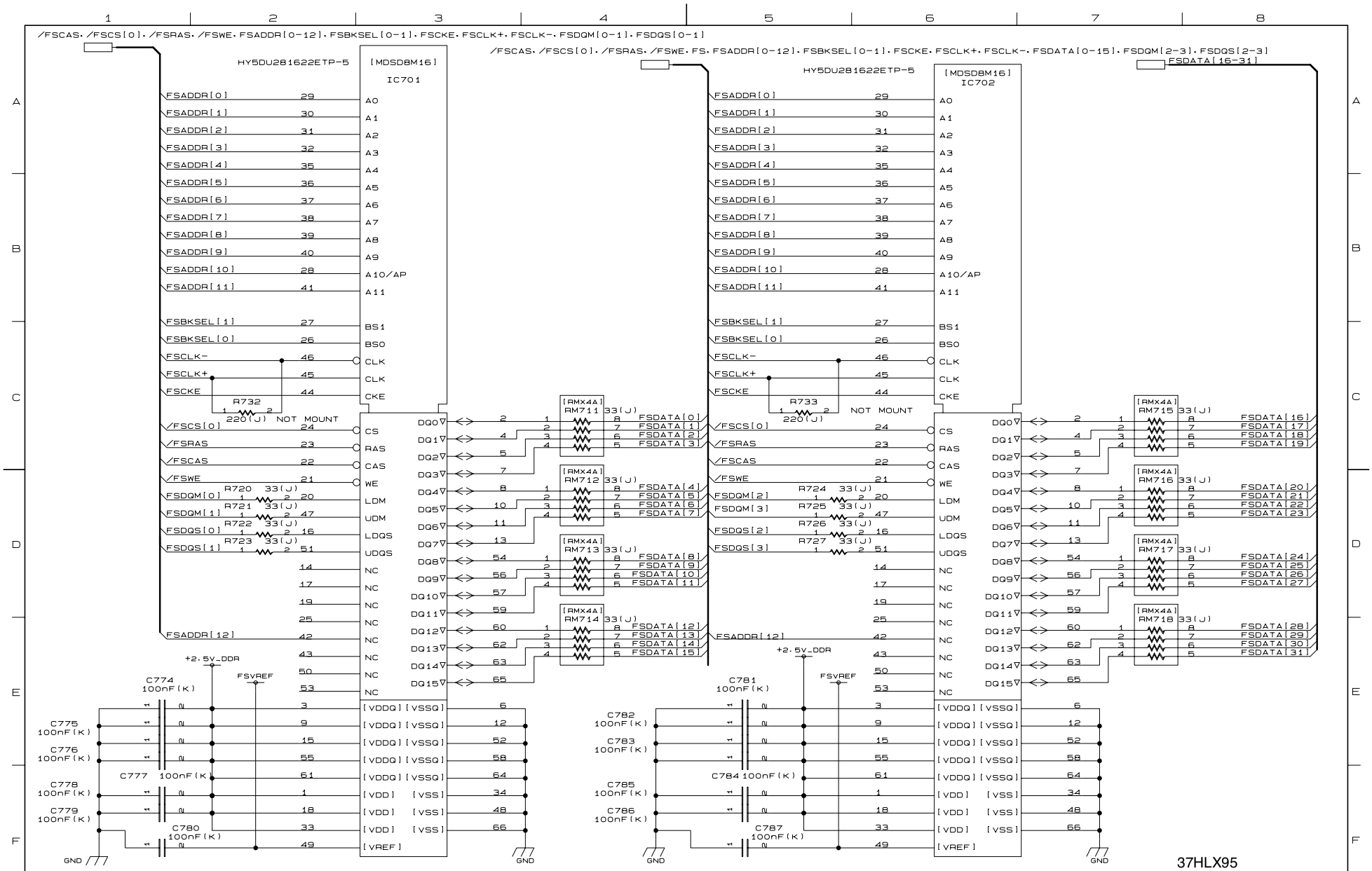
37HLX95
SIGNAL
CORTEZ 2

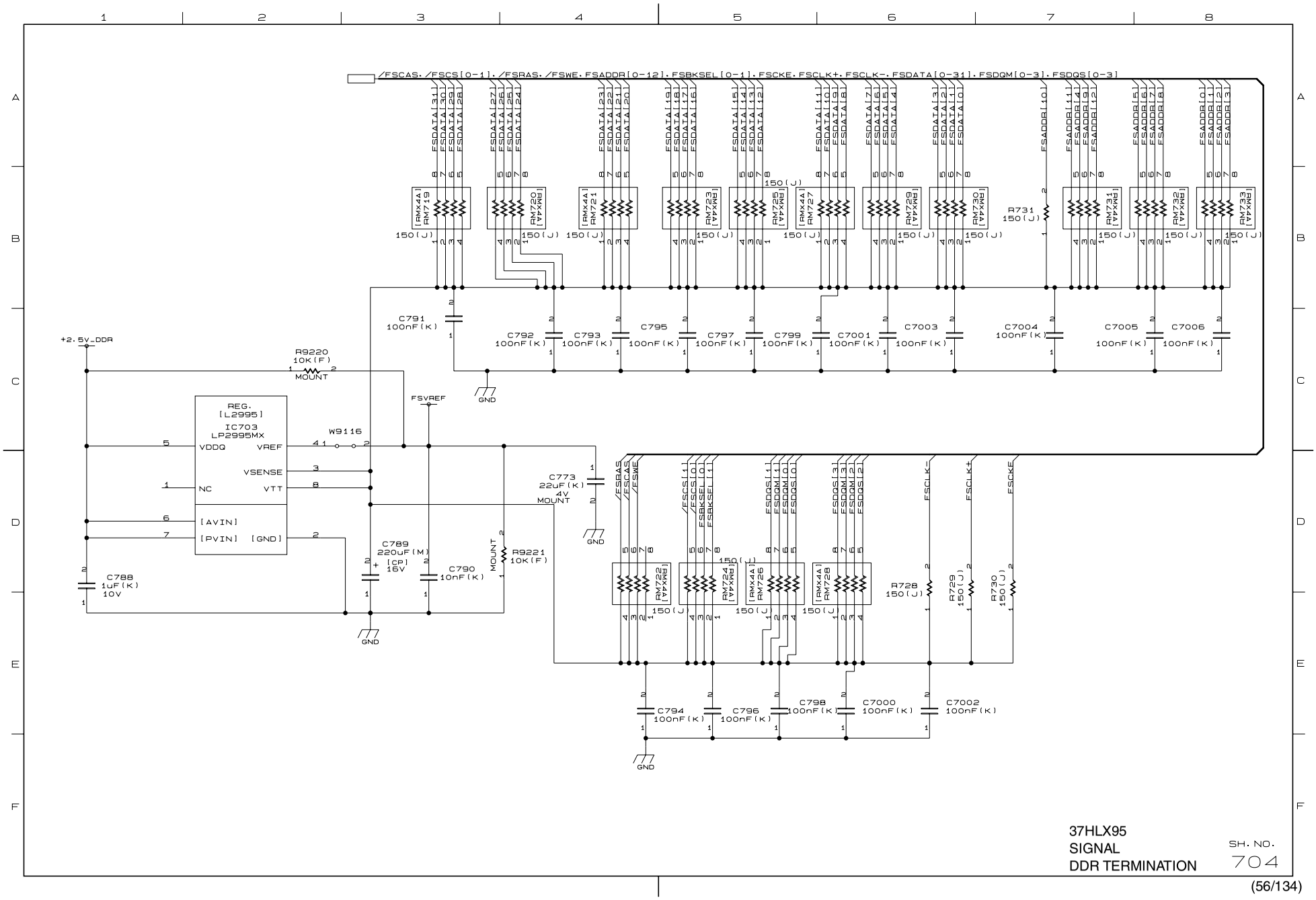
SH. NO.
701



37HLX95
SIGNAL
DDR I/F

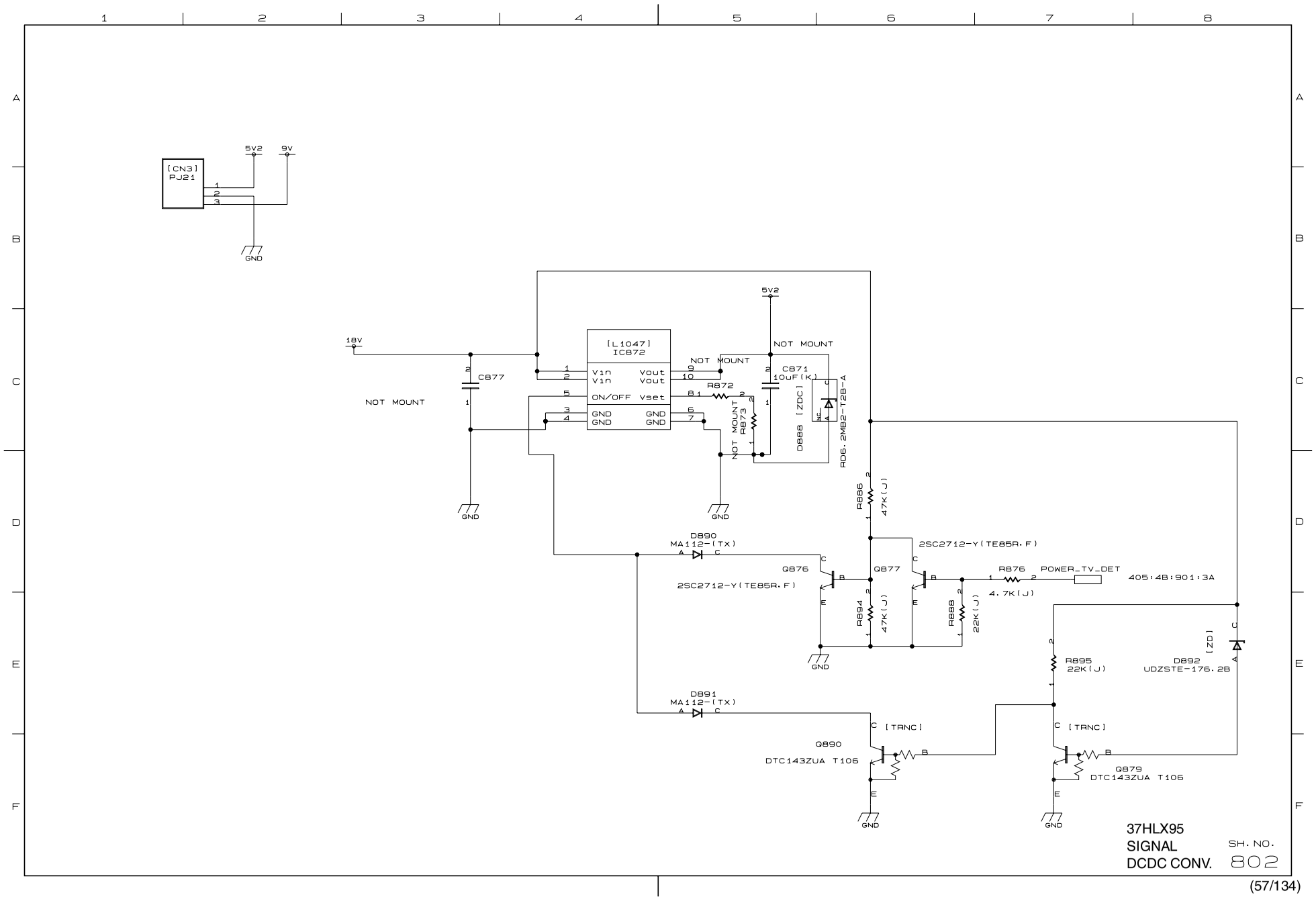
SH. NO.
702

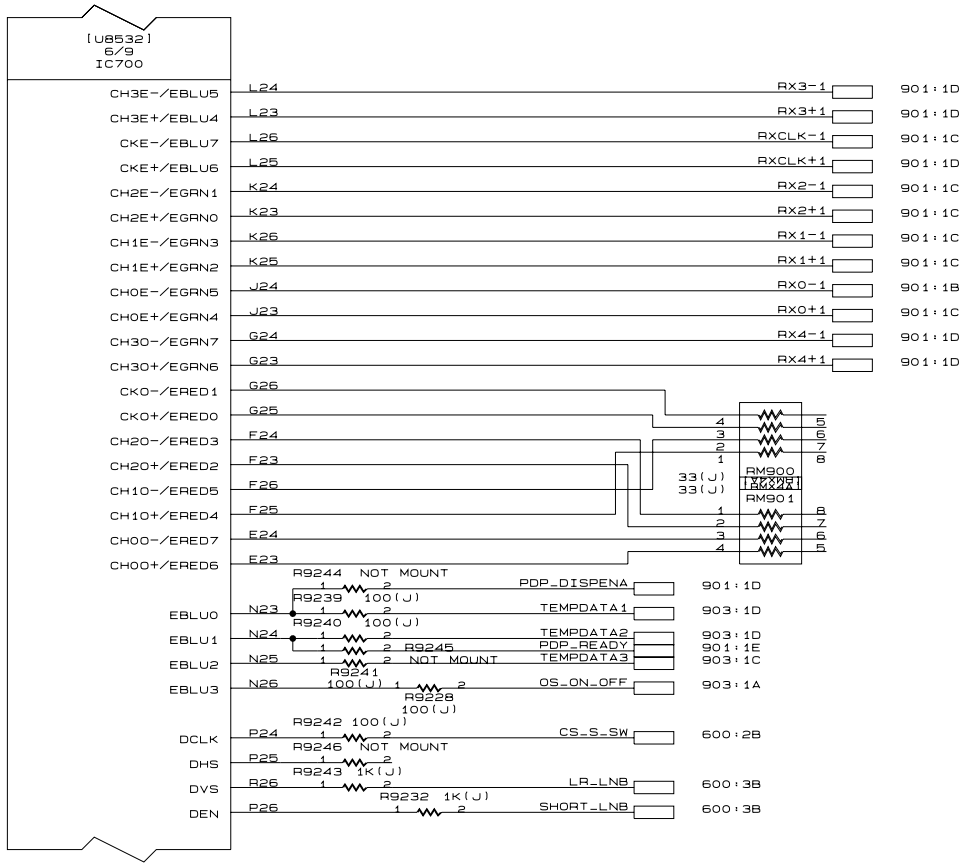

/FSCAS. /FSCS[0]. /FSRAS. /FSWE. FSADDR[0-12]. FSBKSEL[0-1]. FSCKE. FSCLK+. FSCLK-. FSDQM[0-1]. FSDQS[0-1]
HY5DU281622ETP-5
[MDSD8M16]
IC701
FSADDR[0] 29 A0
FSADDR[1] 30 A1
FSADDR[2] 31 A2
FSADDR[3] 32 A3
FSADDR[4] 35 A4
FSADDR[5] 36 A5
FSADDR[6] 37 A6
FSADDR[7] 38 A7
FSADDR[8] 39 A8
FSADDR[9] 40 A9
FSADDR[10] 28 A10/AP
FSADDR[11] 41 A11
FSBKSEL[1] 27 BS1
FSBKSEL[0] 26 BS0
FSCLK- 46 CLK
FSCLK+ 45 CLK
FSCKE 44 CKE
R732 220(J) NOT MOUNT
FSCS[0] 24 CS
FSRAS 23 RAS
FSCAS 22 CAS
FSWE 21 WE
FSDQM[0] R720 33(J) 20 LDM
FSDQM[1] R721 33(J) 47 UDM
FSDQS[0] R722 33(J) 16 LDQS
FSDQS[1] R723 33(J) 51 UDQS
14 NC
17 NC
19 NC
25 NC
FSADDR[12] 42 NC
43 NC
50 NC
53 NC
DQ0 DQ1 DQ2 DQ3 DQ4 DQ5 DQ6 DQ7 DQ8 DQ9 DQ10 DQ11 DQ12 DQ13 DQ14 DQ15
[VDDQ] [VSSQ] [VDD] [VSS] [VREF]
+2.5V_DDR
FSVREF
C774 100nF(K)
C775 100nF(K)
C776 100nF(K)
C777 100nF(K)
C778 100nF(K)
C779 100nF(K)
C780 100nF(K)
GND
[RMX4A] RM711 33(J) FSDATA[0] FSDATA[1] FSDATA[2] FSDATA[3]
[RMX4A] RM712 33(J) FSDATA[4] FSDATA[5] FSDATA[6] FSDATA[7]
[RMX4A] RM713 33(J) FSDATA[8] FSDATA[9] FSDATA[10] FSDATA[11]
[RMX4A] RM714 33(J) FSDATA[12] FSDATA[13] FSDATA[14] FSDATA[15]
/FSCAS. /FSCS[0]. /FSRAS. /FSWE. FS. FSADDR[0-12]. FSBKSEL[0-1]. FSCKE. FSCLK+. FSCLK-. FSDATA[0-15]. FSDQM[2-3]. FSDQS[2-3]
FSDATA[16-31]
HY5DU281622ETP-5
[MDSD8M16]
IC702
R733 220(J) NOT MOUNT
FSDQM[2] R724 33(J)
FSDQM[3] R725 33(J)
FSDQS[2] R726 33(J)
FSDQS[3] R727 33(J)
C781 100nF(K)
C782 100nF(K)
C783 100nF(K)
C784 100nF(K)
C785 100nF(K)
C786 100nF(K)
C787 100nF(K)
[RMX4A] RM715 33(J) FSDATA[16] FSDATA[17] FSDATA[18] FSDATA[19]
[RMX4A] RM716 33(J) FSDATA[20] FSDATA[21] FSDATA[22] FSDATA[23]
[RMX4A] RM717 33(J) FSDATA[24] FSDATA[25] FSDATA[26] FSDATA[27]
[RMX4A] RM718 33(J) FSDATA[28] FSDATA[29] FSDATA[30] FSDATA[31]
37HLX95
SIGNAL
DDR SDRAM
SH. NO.
703



37HLX95
SIGNAL
DDR TERMINATION

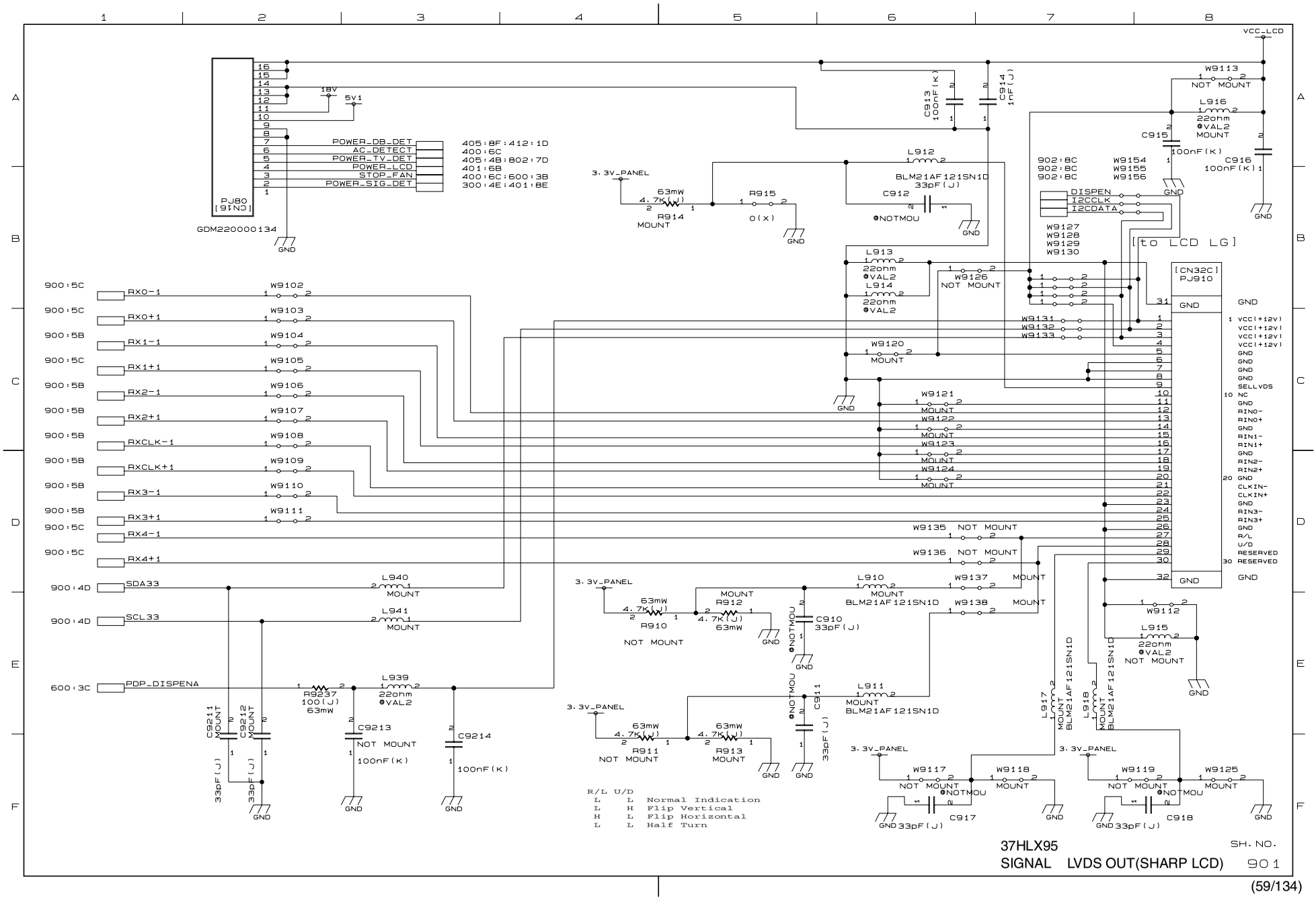
SH. NO.
704

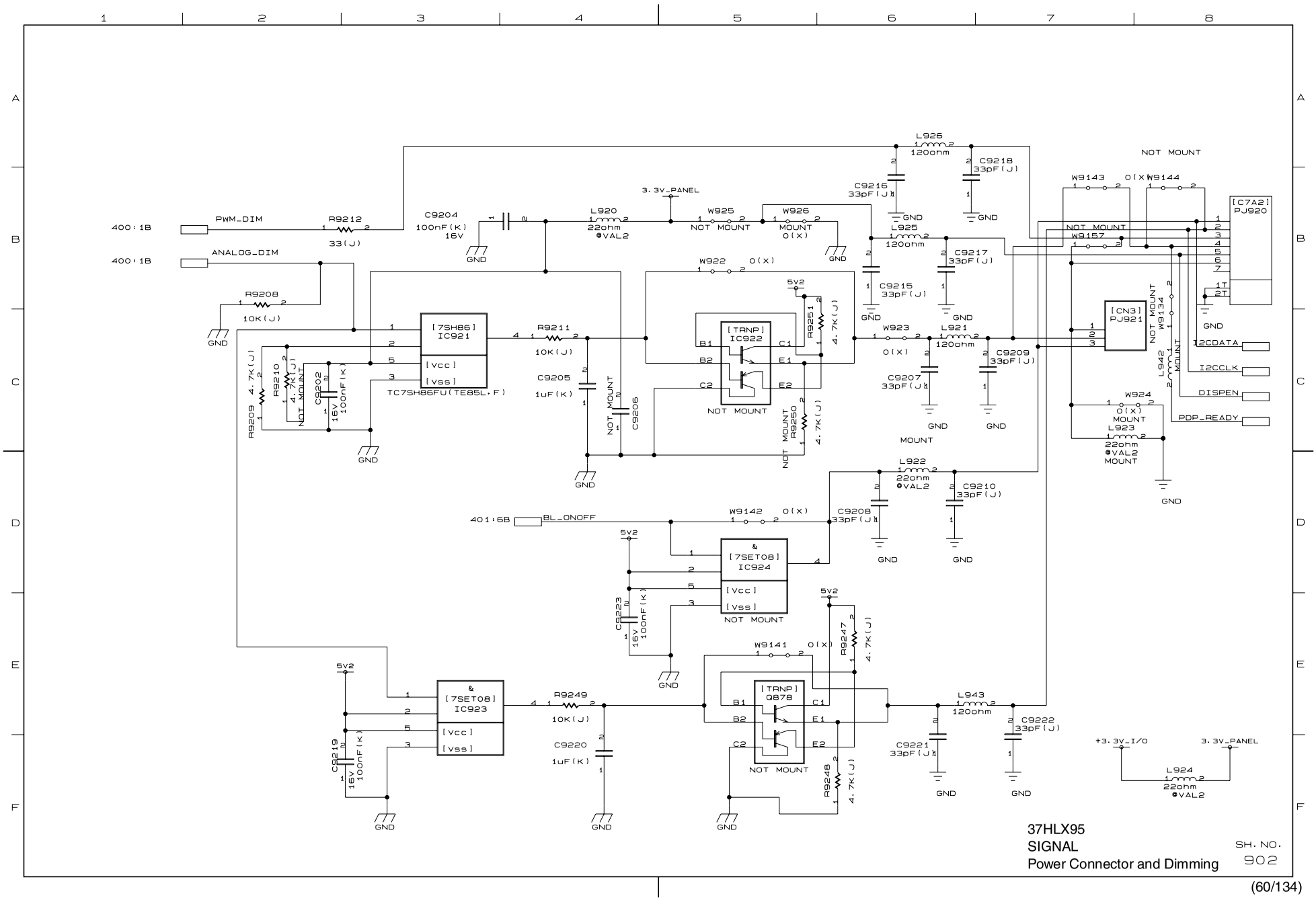

[CN3]
PJ21
5V2
9V
GND
18V
NOT MOUNT
C877
[L1047]
IC872
Vin
Vout
ON/OFF
Vset
GND
C871
10uF(K)
R872
R873
D888 [ZDC]
RD6.2MB2-T2B-A
R886
47K(J)
D890
MA112-(TX)
2SC2712-Y(TE85R.F)
Q876
Q877
R876
POWER_TV_DET
405:4B:901:3A
4.7K(J)
R894
47K(J)
R888
22K(J)
R895
22K(J)
D892
UDZSTE-176.2B
[ZD]
D891
MA112-(TX)
[TRNC]
Q890
DTC143ZUA T106
Q879
37HLX95
SIGNAL
DCDC CONV.
SH. NO.
802



37HLX95
SIGNAL
LVDS OUT

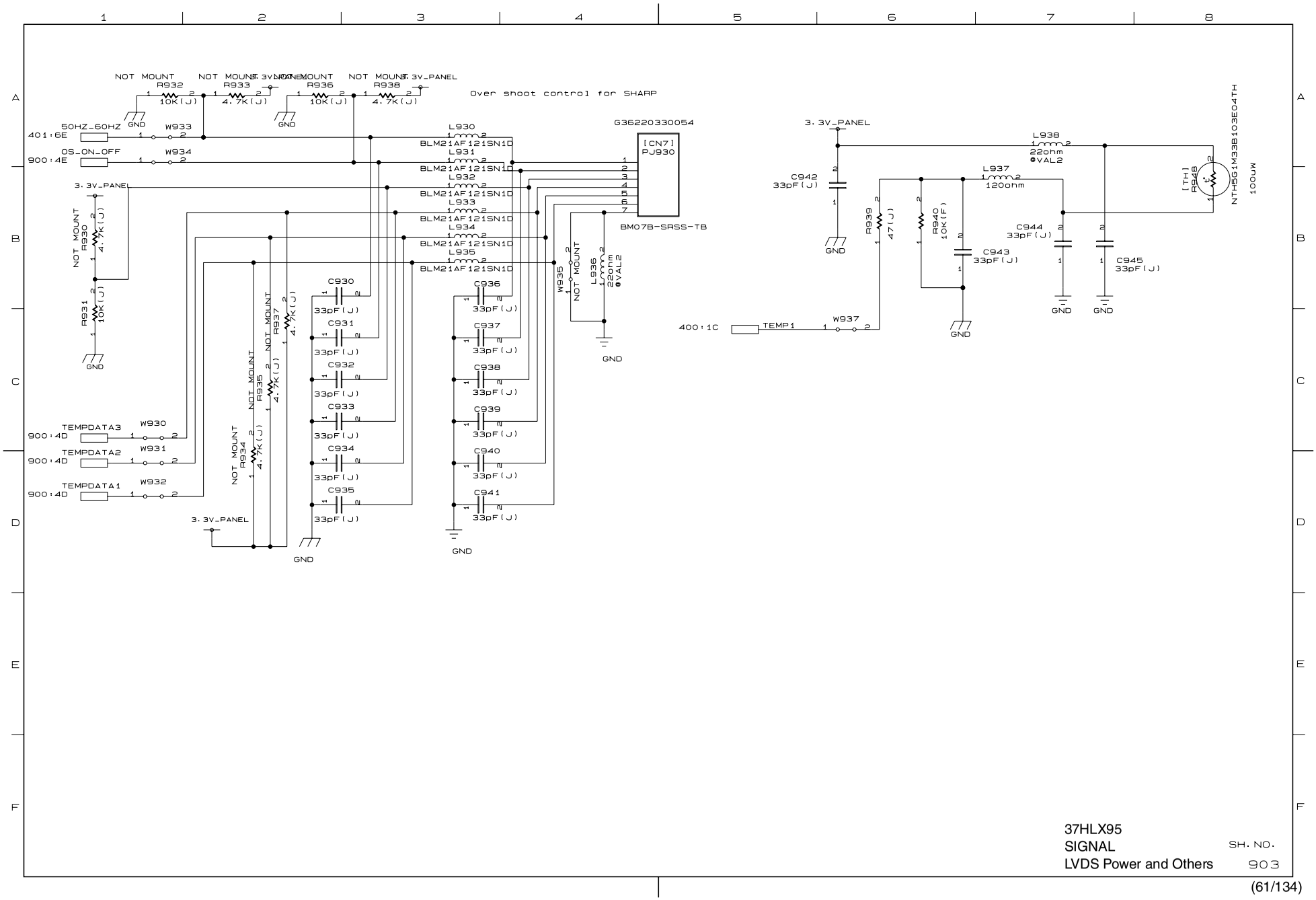
SH. NO.
900


VCC_LCD
PJ80 [CN16]
GDM220000134
POWER_DB_DET
AC_DETECT
POWER_TV_DET
POWER_LCD
STOP_FAN
POWER_SIG_DET
405:8F:412:1D
400:6C
405:4B:802:7D
401:6B
400:6C:600:3B
300:4E:401:8E
18V
5V1
GND
C913 100nF(K)
C914 1nF(J)
W9113 NOT MOUNT
L916 220ohm @VAL2 MOUNT
C915 100nF(K)
C916 100nF(K)
902:8C W9154
902:8C W9155
902:8C W9156
DISPEN
I2CCLK
I2CDATA
W9127
W9128
W9129
W9130
[to LCD LG]
3.3V_PANEL
63mW 4.7K(J)
R914 MOUNT
R915 0(X)
L912 BLM21AF121SN1D 33pF(J)
C912 @NOTMOU
L913 220ohm @VAL2
L914 220ohm @VAL2
W9126 NOT MOUNT
W9120 MOUNT
W9131
W9132
W9133
[CN32C] PJ910
900:5C RX0-1 W9102
900:5C RX0+1 W9103
900:5B RX1-1 W9104
900:5C RX1+1 W9105
900:5B RX2-1 W9106
900:5B RX2+1 W9107
900:5B RXCLK-1 W9108
900:5B RXCLK+1 W9109
900:5B RX3-1 W9110
900:5B RX3+1 W9111
900:5C RX4-1
900:5C RX4+1
W9121 MOUNT
W9122 MOUNT
W9123 MOUNT
W9124 MOUNT
W9135 NOT MOUNT
W9136 NOT MOUNT
900:4D SDA33 L940 MOUNT
900:4D SCL33 L941 MOUNT
600:3C PDP_DISPENA R9237 100(J) 63mW L939 220ohm @VAL2
C9211 MOUNT 33pF(J)
C9212 MOUNT 33pF(J)
C9213 NOT MOUNT 100nF(K)
C9214 100nF(K)
R910 NOT MOUNT
R912 MOUNT 4.7K(J) 63mW
C910 @NOTMOU 33pF(J)
L910 MOUNT BLM21AF121SN1D
W9137 MOUNT
W9138 MOUNT
W9112
L915 220ohm @VAL2 NOT MOUNT
R911 NOT MOUNT
R913 MOUNT
C911 @NOTMOU 33pF(J)
L911 MOUNT BLM21AF121SN1D
L917 MOUNT BLM21AF121SN1D
L918 MOUNT BLM21AF121SN1D
W9117 NOT MOUNT
W9118 MOUNT
W9119 NOT MOUNT
W9125 MOUNT
C917 @NOTMOU 33pF(J)
C918 @NOTMOU 33pF(J)
R/L U/D
L L Normal Indication
L H Flip Vertical
H L Flip Horizontal
L L Half Turn
37HLX95
SIGNAL LVDS OUT(SHARP LCD)
SH. NO. 901



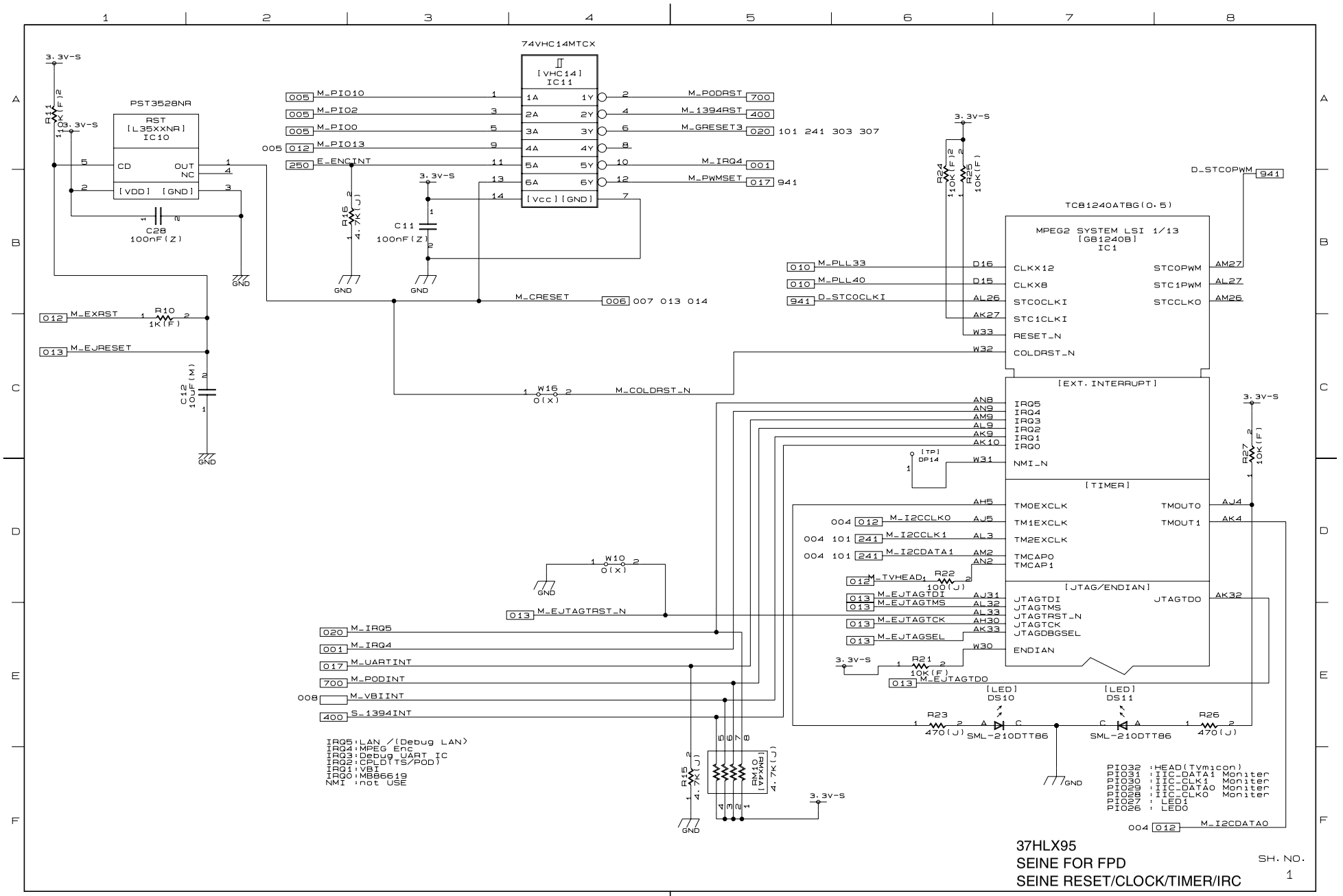
37HLX95
SIGNAL
Power Connector and Dimming

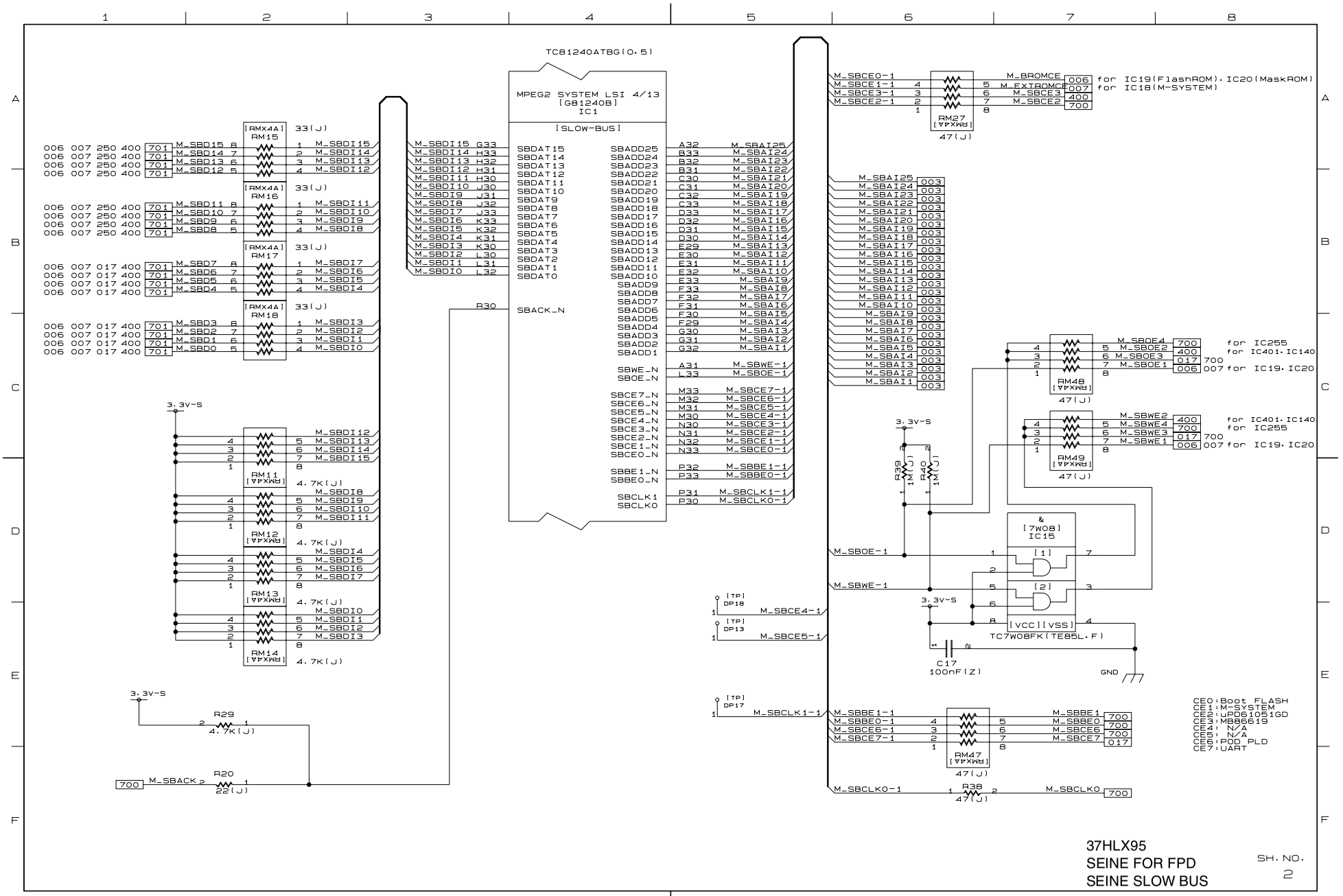
SH. NO.
902

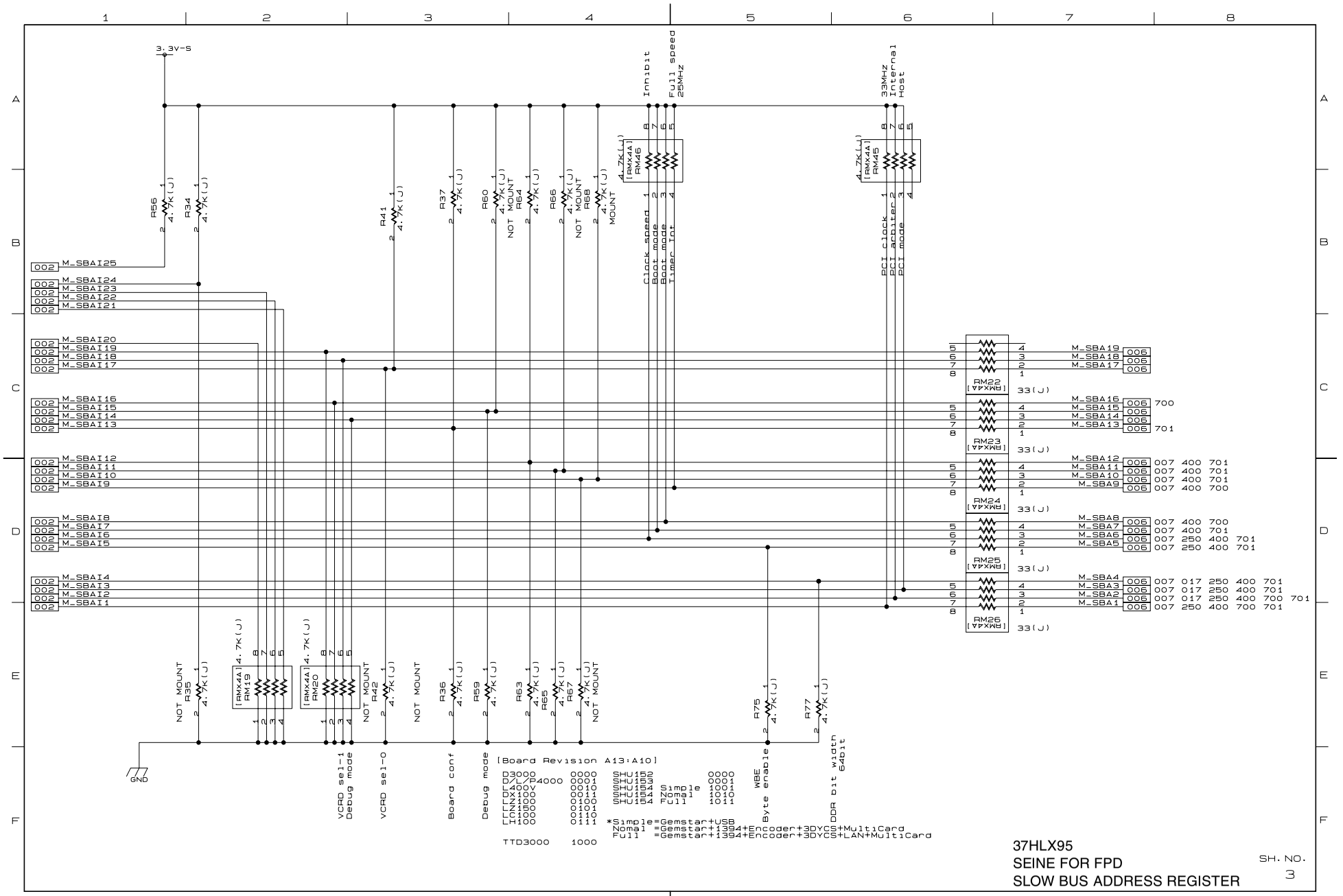


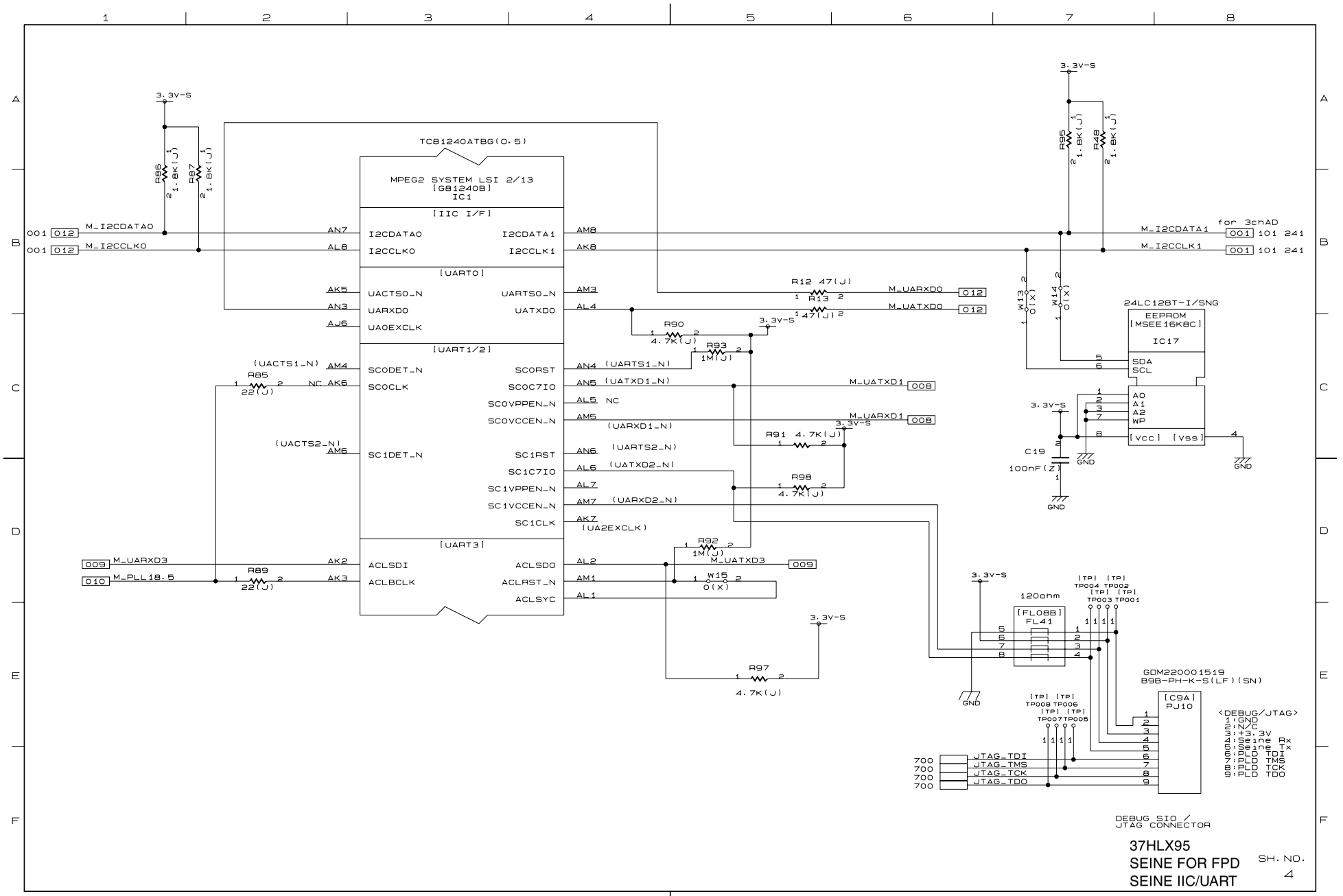
37HLX95
SIGNAL
LVDS Power and Others

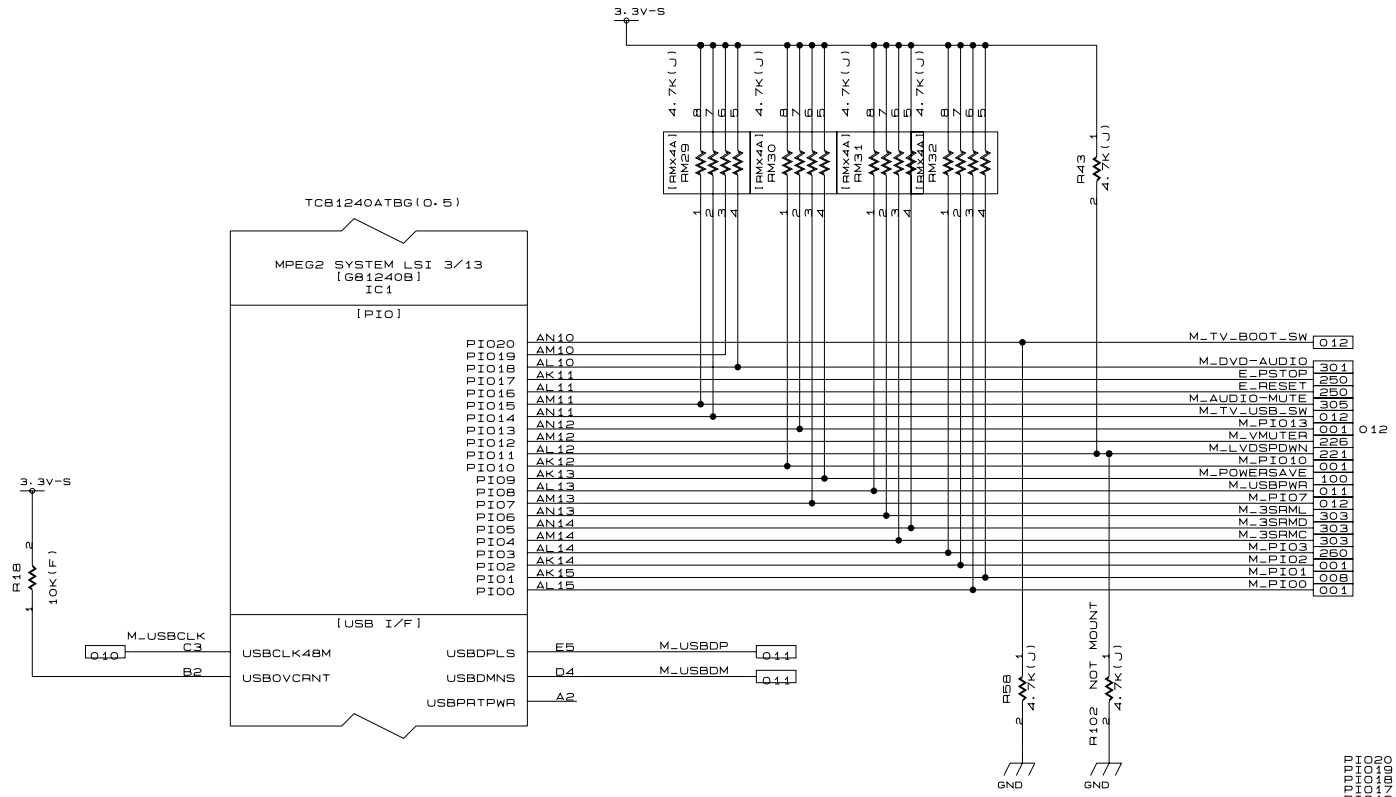
SH. NO. 903


74VHC14MTCX
[VHC14]
IC11
PST3528NR
RST
[L35XXNR]
IC10
TC81240ATBG(0.5)
MPEG2 SYSTEM LSI 1/13
[G81240B]
IC1
[EXT. INTERRUPT]
[TIMER]
[JTAG/ENDIAN]
37HLX95
SEINE FOR FPD
SEINE RESET/CLOCK/TIMER/IRC
SH. NO.
1


TC81240ATBG(0.5)
MPEG2 SYSTEM LSI 4/13
[G81240B]
IC1
[SLOW-BUS]
SBDAT15
SBDAT14
SBDAT13
SBDAT12
SBDAT11
SBDAT10
SBDAT9
SBDAT8
SBDAT7
SBDAT6
SBDAT5
SBDAT4
SBDAT3
SBDAT2
SBDAT1
SBDAT0
SBACK_N
SBADD25
SBADD24
SBADD23
SBADD22
SBADD21
SBADD20
SBADD19
SBADD18
SBADD17
SBADD16
SBADD15
SBADD14
SBADD13
SBADD12
SBADD11
SBADD10
SBADD9
SBADD8
SBADD7
SBADD6
SBADD5
SBADD4
SBADD3
SBADD2
SBADD1
SBWE_N
SBOE_N
SBCE7_N
SBCE6_N
SBCE5_N
SBCE4_N
SBCE3_N
SBCE2_N
SBCE1_N
SBCE0_N
SBBE1_N
SBBE0_N
SBCLK1
SBCLKO
M_SBDI15
M_SBDI14
M_SBDI13
M_SBDI12
M_SBDI11
M_SBDI10
M_SBDI9
M_SBDI8
M_SBDI7
M_SBDI6
M_SBDI5
M_SBDI4
M_SBDI3
M_SBDI2
M_SBDI1
M_SBDI0
M_SBAI25
M_SBAI24
M_SBAI23
M_SBAI22
M_SBAI21
M_SBAI20
M_SBAI19
M_SBAI18
M_SBAI17
M_SBAI16
M_SBAI15
M_SBAI14
M_SBAI13
M_SBAI12
M_SBAI11
M_SBAI10
M_SBAI9
M_SBAI8
M_SBAI7
M_SBAI6
M_SBAI5
M_SBAI4
M_SBAI3
M_SBAI2
M_SBAI1
M_SBWE-1
M_SBOE-1
M_SBCE7-1
M_SBCE6-1
M_SBCE5-1
M_SBCE4-1
M_SBCE3-1
M_SBCE2-1
M_SBCE1-1
M_SBCE0-1
M_SBBE1-1
M_SBBE0-1
M_SBCLK1-1
M_SBCLKO-1
M_SBCE0-1
M_SBCE1-1
M_SBCE3-1
M_SBCE2-1
M_BROMCE
M_EXTROMCE
M_SBCE3
M_SBCE2
RM27
47(J)
for IC19(FlashROM). IC20(MaskROM)
for IC18(M-SYSTEM)
M_SBOE4
M_SBOE2
M_SBOE3
M_SBOE1
RM48
for IC255
for IC401. IC140
for IC19. IC20
M_SBWE2
M_SBWE4
M_SBWE3
M_SBWE1
RM49
for IC401. IC140
for IC255
for IC19. IC20
3.3V-S
R39
1M(J)
R40
1M(J)
&
[7W08]
IC15
[1]
[2]
[VCC][VSS]
TC7W08FK(TE85L.F)
C17
100nF(Z)
GND
[TP]
DP18
[TP]
DP13
[TP]
DP17
RM15
RM16
RM17
RM18
RM11
RM12
RM13
RM14
4.7K(J)
33(J)
R29
4.7K(J)
R20
22(J)
M_SBACK
R30
R38
47(J)
CE0:Boot FLASH
CE1:M-SYSTEM
CE2:uPD61051GD
CE3:MB86619
CE4: N/A
CE5: N/A
CE6:POD_PLD
CE7:UART
37HLX95
SEINE FOR FPD
SEINE SLOW BUS
SH. NO.
2


3.3V-S
R56 2 4.7K(J) 1
R34 2 4.7K(J) 1
R41 2 4.7K(J) 1
R37 2 4.7K(J) 1
R60 2 4.7K(J) 1
NOT MOUNT
R64 2 4.7K(J) 1
R66 2 4.7K(J) 1
NOT MOUNT
R68 2 4.7K(J) 1
MOUNT
[RMX4A] 4.7K(J) RM46
Inhibit
Full speed 25MHz
Clock speed
Boot mode
Boot mode
Timer Tst
[RMX4A] 4.7K(J) RM45
33MHz Internal Host
PCI clock
PCI arbiter
PCI mode
M_SBAI25
M_SBAI24
M_SBAI23
M_SBAI22
M_SBAI21
M_SBAI20
M_SBAI19
M_SBAI18
M_SBAI17
M_SBAI16
M_SBAI15
M_SBAI14
M_SBAI13
M_SBAI12
M_SBAI11
M_SBAI10
M_SBAI9
M_SBAI8
M_SBAI7
M_SBAI6
M_SBAI5
M_SBAI4
M_SBAI3
M_SBAI2
M_SBAI1
002
RM22 [RMX4A] 33(J)
RM23 [RMX4A] 33(J)
RM24 [RMX4A] 33(J)
RM25 [RMX4A] 33(J)
RM26 [RMX4A] 33(J)
M_SBA19
M_SBA18
M_SBA17
M_SBA16
M_SBA15
M_SBA14
M_SBA13
M_SBA12
M_SBA11
M_SBA10
M_SBA9
M_SBA8
M_SBA7
M_SBA6
M_SBA5
M_SBA4
M_SBA3
M_SBA2
M_SBA1
006
007 400 701
007 400 700
007 250 400 701
007 250 400 700
007 017 250 400 701
007 017 250 400 700 701
700
701
NOT MOUNT R35 2 4.7K(J) 1
[RMX4A] 4.7K(J) RM19
[RMX4A] 4.7K(J) RM20
NOT MOUNT R42 2 4.7K(J) 1
NOT MOUNT
R36 2 4.7K(J) 1
R59 2 4.7K(J) 1
R63 2 4.7K(J) 1
R65 2 4.7K(J) 1
R67 2 4.7K(J) 1
NOT MOUNT
R75 2 4.7K(J) 1
R77 2 4.7K(J) 1
GND
VCRO sel-1
Debug mode
VCRO sel-0
Board conf
Debug mode
WBE
Byte enable
DDR bit width
64bit
[Board Revision A13:A10]
D3000 0000
DDR400V 0001
RX1000 0010
RN1000 0011
RN1500 0100
RN1000 0101
RN1000 0110
RN100 0111
SHU150 0000
SHU1000 0001
SHU1044 Simple 1010
Nomal 1010
SHU1044 Full 1011
TTD3000 1000
*Simple=Gemstar+USB
Nomal =Gemstar+1394+Encoder+3DYCS+MultiCard
Full =Gemstar+1394+Encoder+3DYCS+LAN+MultiCard
37HLX95
SEINE FOR FPD
SLOW BUS ADDRESS REGISTER
SH. NO.
3

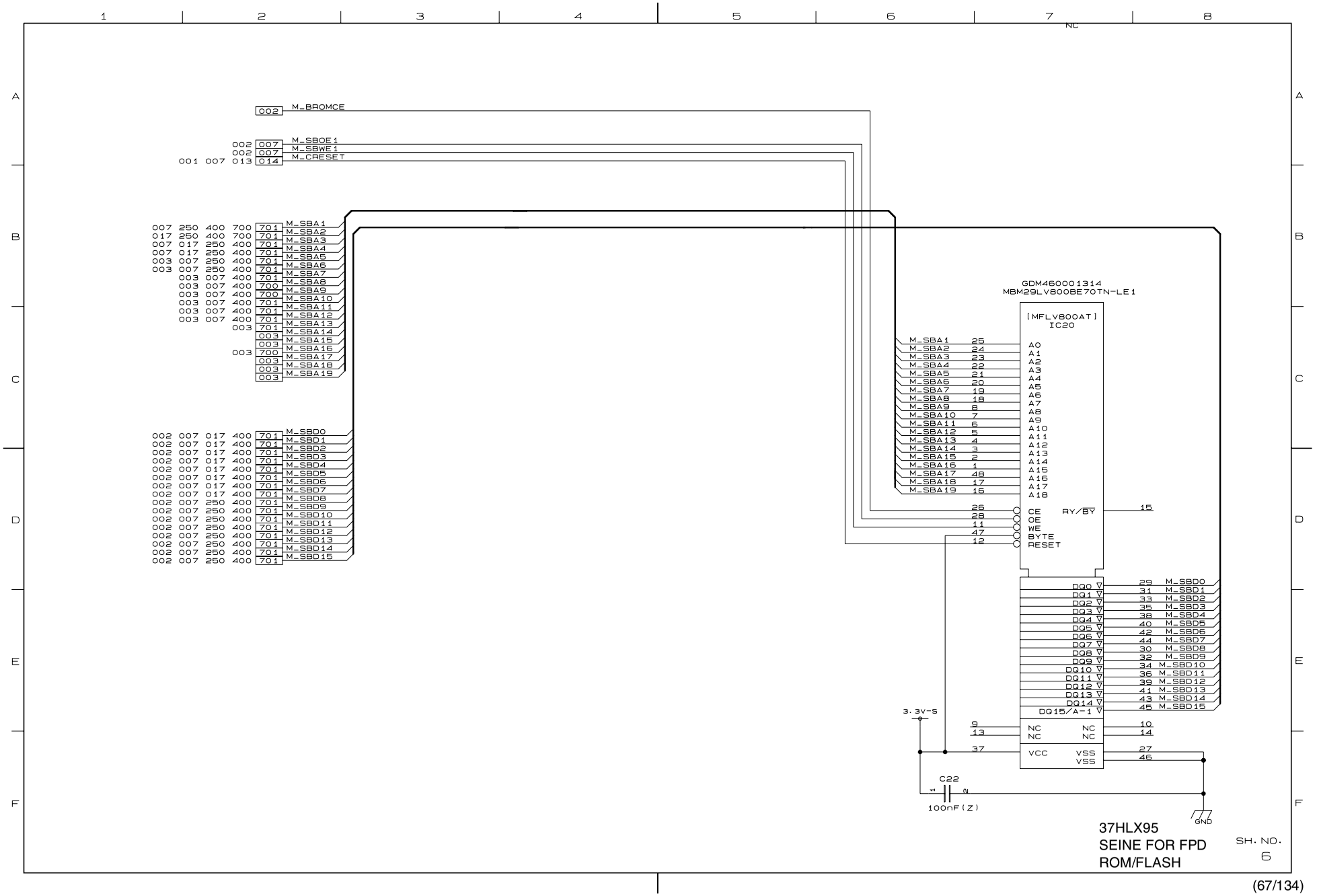

TC81240ATBG(0.5)
MPEG2 SYSTEM LSI 2/13
[G81240B]
IC1
[IIC I/F]
I2CDATA0
I2CCLK0
I2CDATA1
I2CCLK1
[UART0]
UACTS0_N
UARXD0
UA0EXCLK
UARTS0_N
UATXD0
[UART1/2]
SC0DET_N
SC0CLK
SC0RST
SC0C7IO
SC0VPPEN_N
SC0VCCEN_N
SC1DET_N
SC1RST
SC1C7IO
SC1VPPEN_N
SC1VCCEN_N
SC1CLK
(UA2EXCLK)
[UART3]
ACLSDI
ACLBCLK
ACLSDO
ACLRST_N
ACLSYC
M_I2CDATA0
M_I2CCLK0
M_I2CDATA1
M_I2CCLK1
for 3chAD
M_UARXD0
M_UATXD0
M_UATXD1
M_UARXD1
M_UARXD3
M_PLL18.5
M_UATXD3
(UACTS1_N)
(UACTS2_N)
(UARTS1_N)
(UARTS2_N)
(UATXD1_N)
(UATXD2_N)
(UARXD1_N)
(UARXD2_N)
NC
3.3V-S
R85 22(J)
R86 1.8K(J)
R87 1.8K(J)
R89 22(J)
R90 4.7K(J)
R92 1M(J)
R93 1M(J)
R97 4.7K(J)
R98 4.7K(J)
R91 4.7K(J)
R12 47(J)
R13 47(J)
R95 1.8K(J)
R48 1.8K(J)
W13 O(X)
W14 O(X)
W15 O(X)
24LC128T-I/SNG
EEPROM
[MSEE16K8C]
IC17
SDA
SCL
A0
A1
A2
WP
[Vcc]
[Vss]
C19
100nF(Z)
GND
120ohm
[FL08B]
FL41
[TP]
TP004
TP002
TP003
TP001
TP008
TP006
TP007
TP005
GDM2200001519
B9B-PH-K-S(LF)(SN)
[C9A]
PJ10
<DEBUG/JTAG>
1:GND
2:N/C
3:+3.3V
4:Seine Rx
5:Seine Tx
6:PLD TDI
7:PLD TMS
8:PLD TCK
9:PLD TDO
JTAG_TDI
JTAG_TMS
JTAG_TCK
JTAG_TDO
DEBUG SIO / JTAG CONNECTOR
37HLX95
SEINE FOR FPD
SEINE IIC/UART
SH. NO.
4



PIO20:TV BOOT SW
PIO19: N.C.
PIO18:DVD AUDIO
PIO17:Encoder STOP
PIO16:Encoder RESET
PIO15:Audio Mute
PIO14:TV USB SW
PIO13:Pod Standy UART0 SW
PIO12:Video Mute for RecOUT
PIO11:LVDS **POWER DOWN**
PIO10:PLD RESET
PIO9 :POWER SAVE
PIO8 :USB Power
PIO7 :Pod Standy IICO SW
PIO6 :Serial bus latch(D/A)
PIO5 :Serial bus data(D/A)
PIO4 :Serial bus clock(D/A)
PIO3 :Gemster IA Reset
PIO2 :1394LSI Reset
PIO1 :Gemster IA Reset
PIO0 :3.3V Grobal Reset

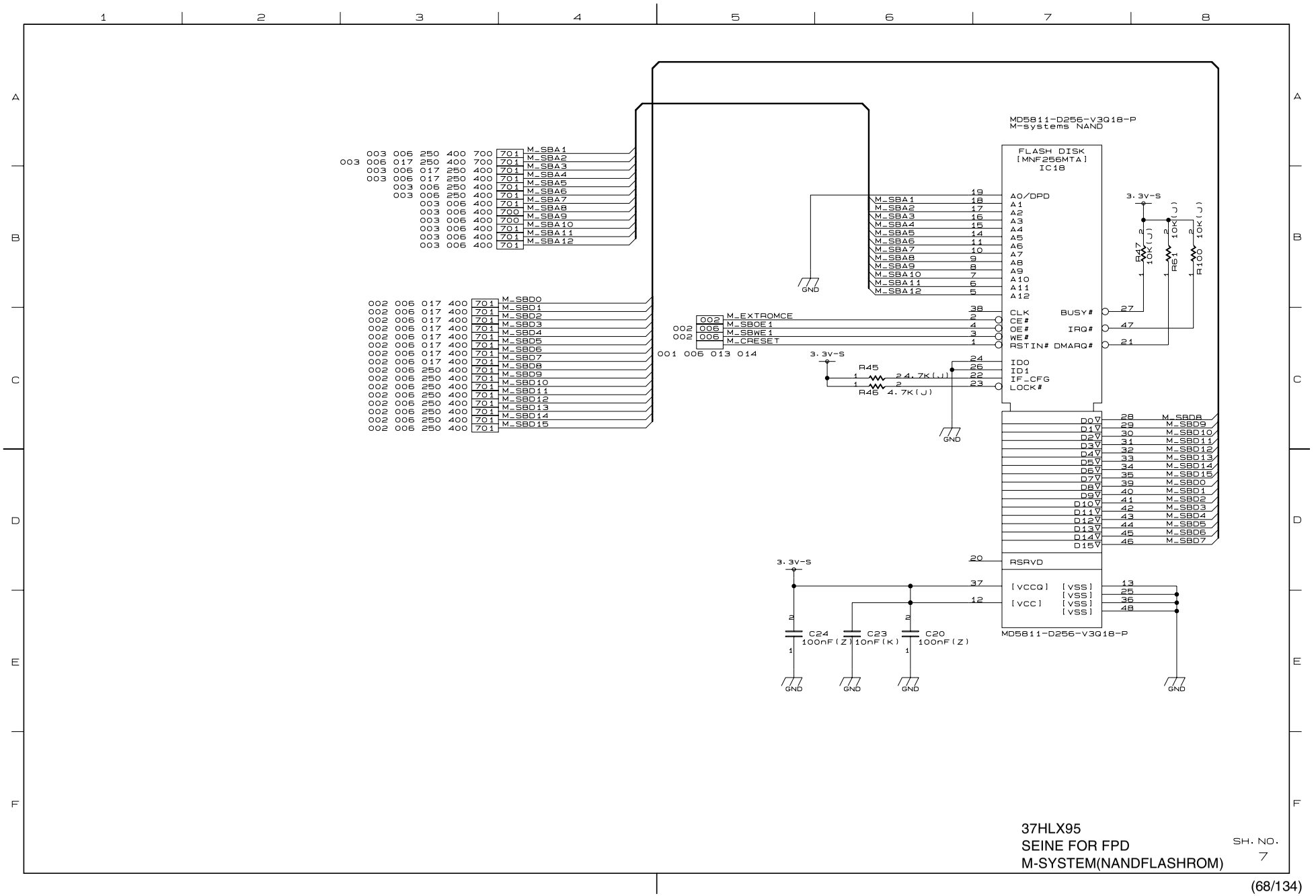
37HLX95
SEINE FOR FPD
SEINE PIO

SH. NO.
5



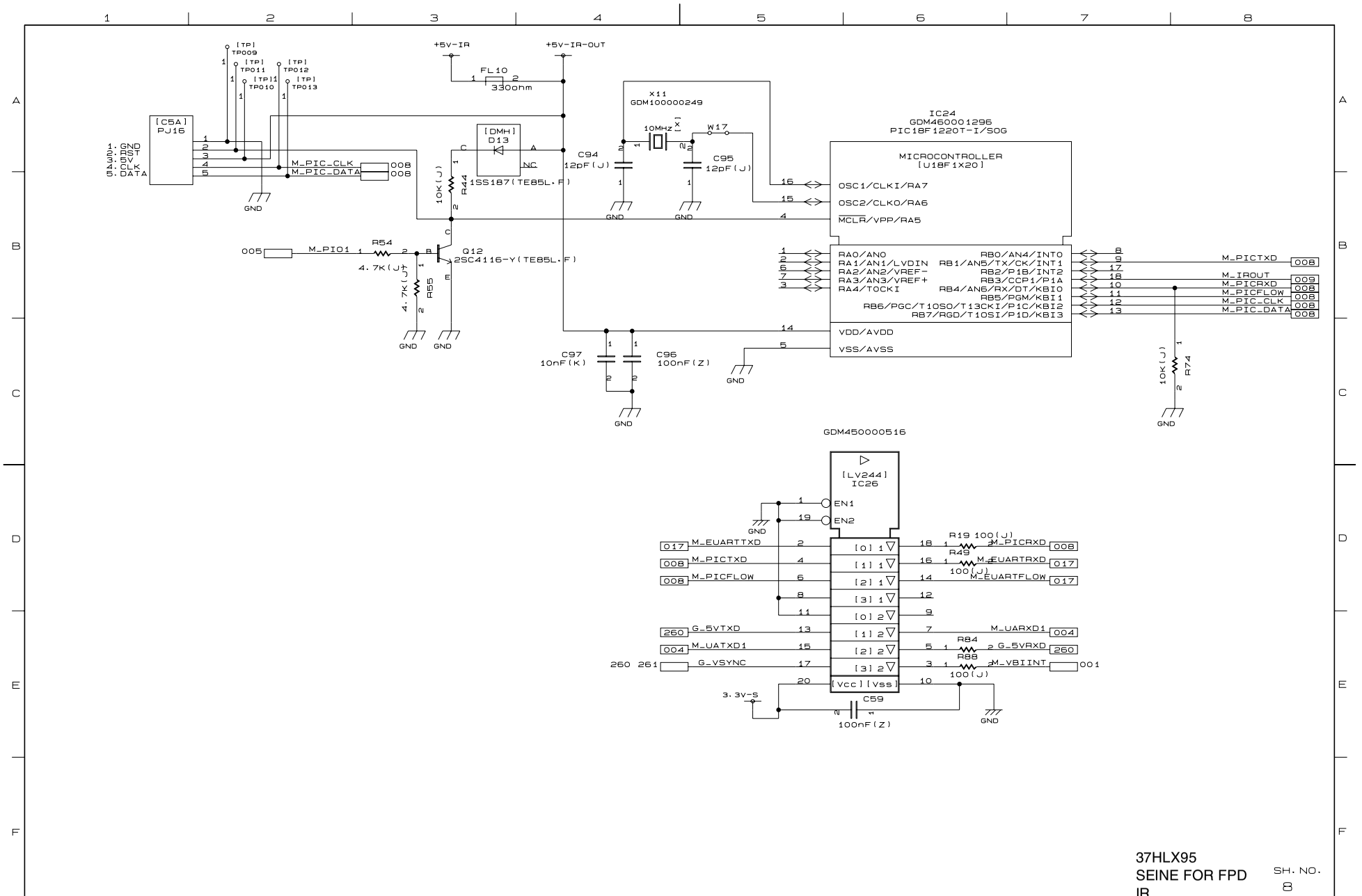
37HLX95
SEINE FOR FPD
ROM/FLASH

SH. NO.
6



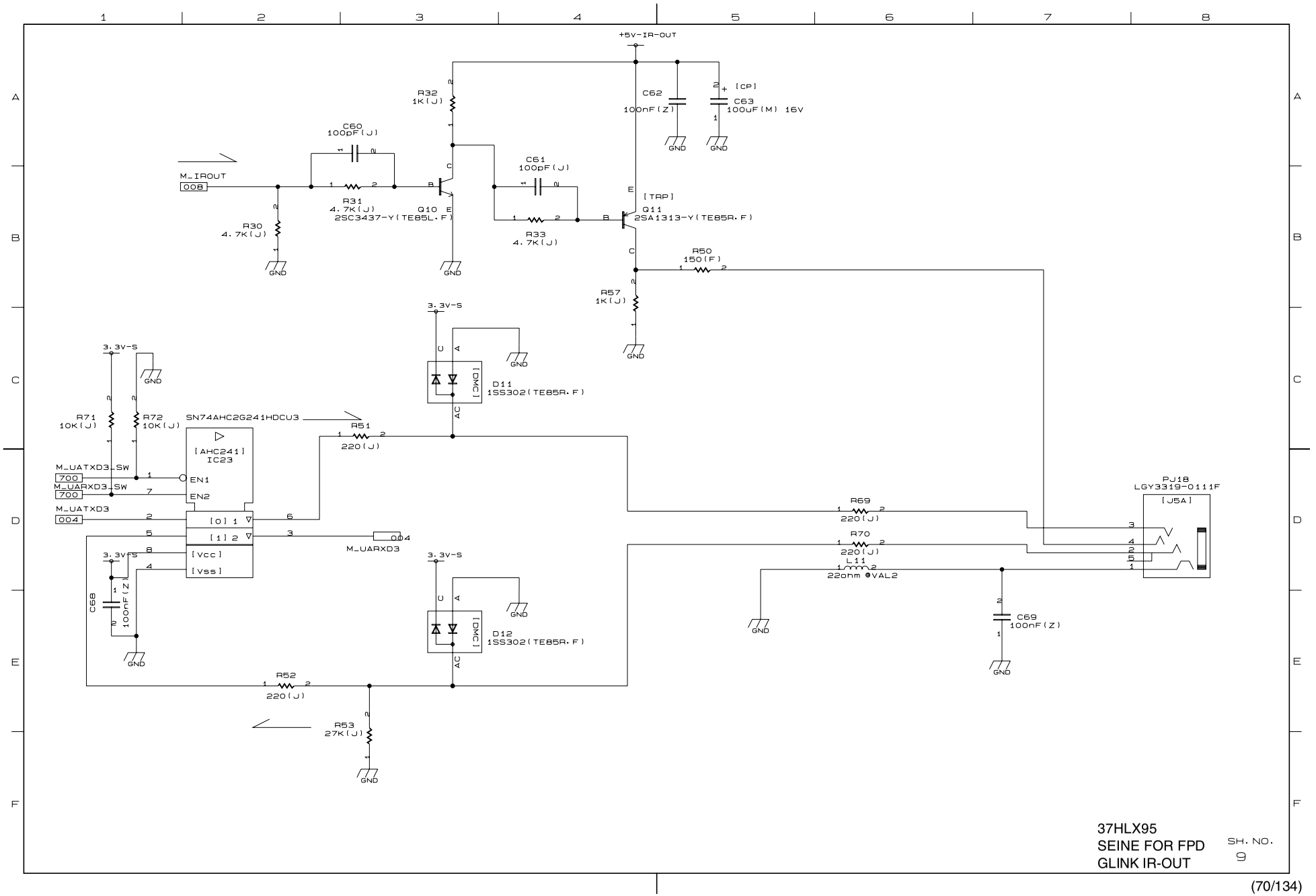
37HLX95
SEINE FOR FPD
M-SYSTEM(NANDFLASHROM)

SH. NO.
7



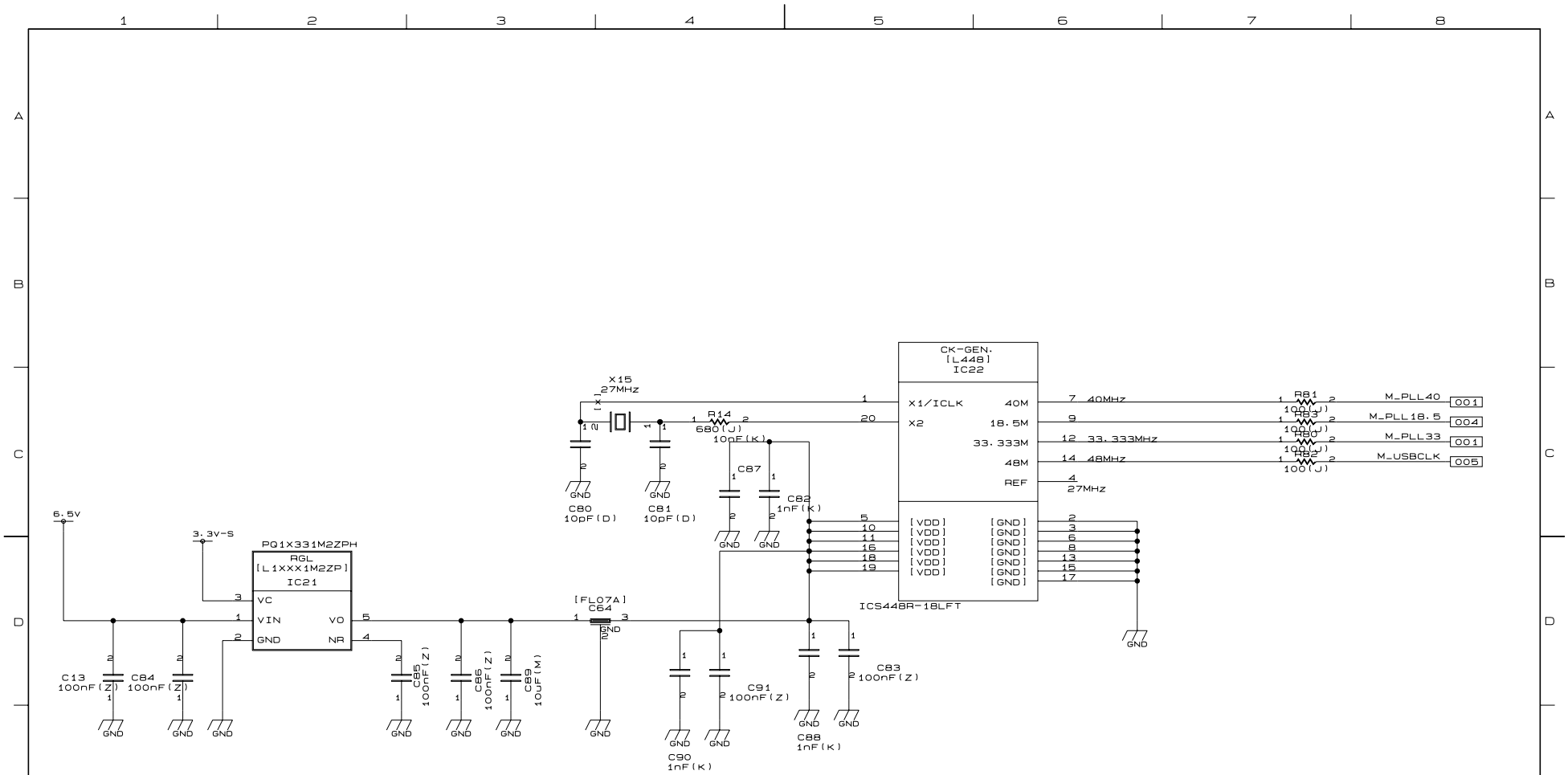
37HLX95
SEINE FOR FPD
IR

SH. NO.
8



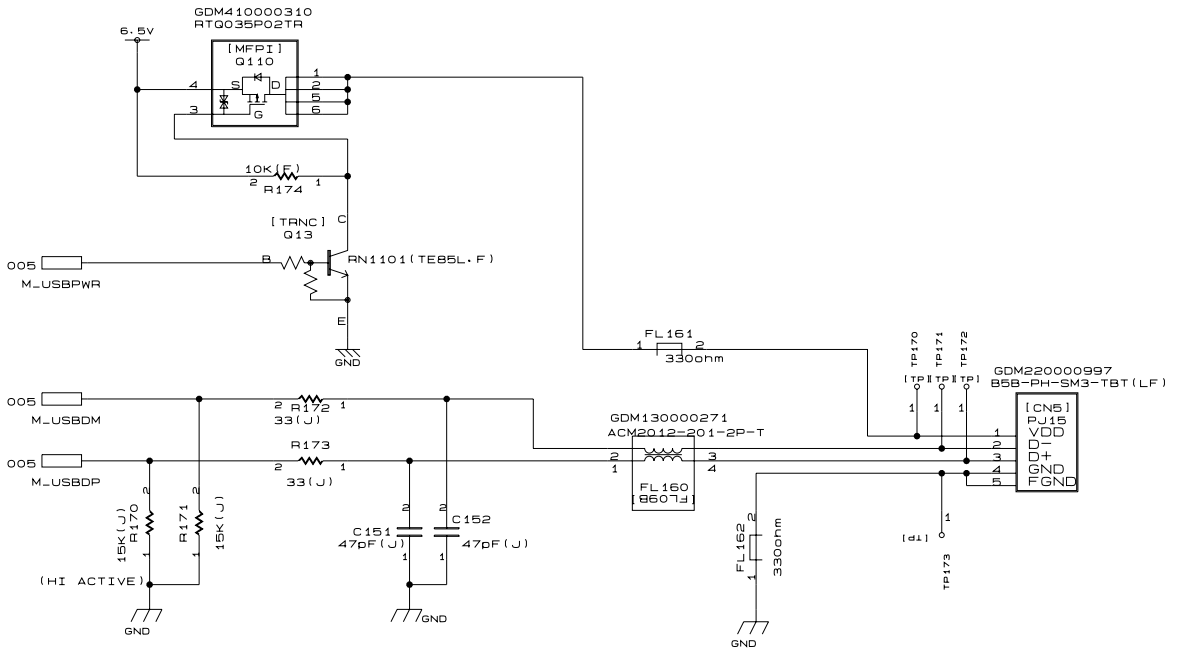
37HLX95
SEINE FOR FPD
GLINK IR-OUT

SH. NO.
9



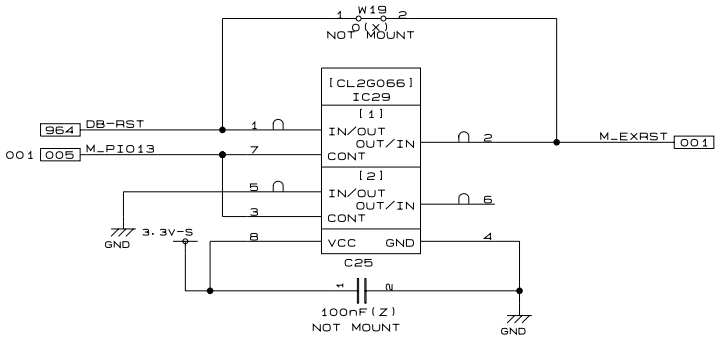
37HLX95
SEINE FOR FPD
CLOCK GEN.

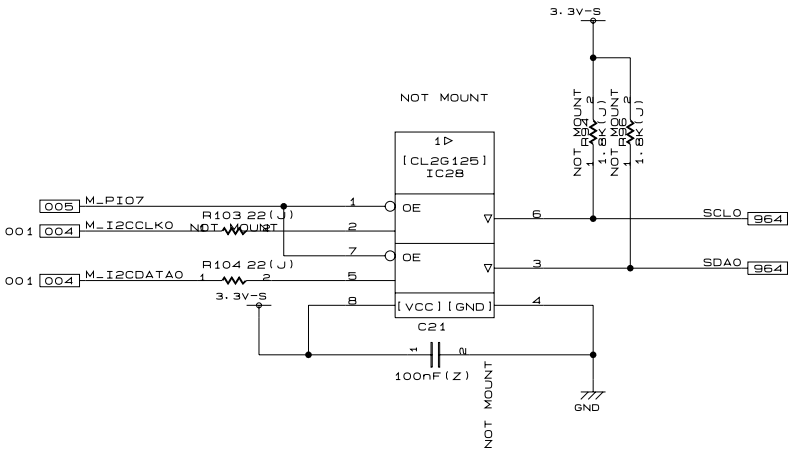
SH. NO.
10

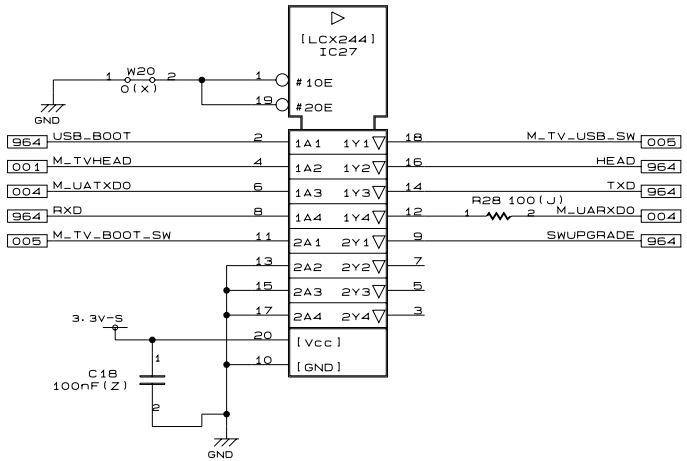


37HLX95
SEINE FOR FPD
USB I/F

SH. NO.
11

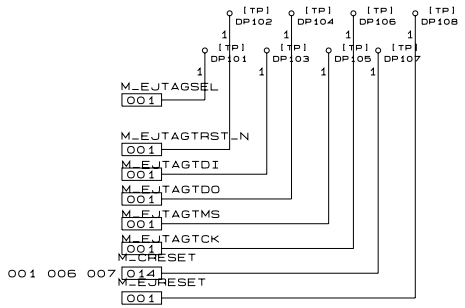






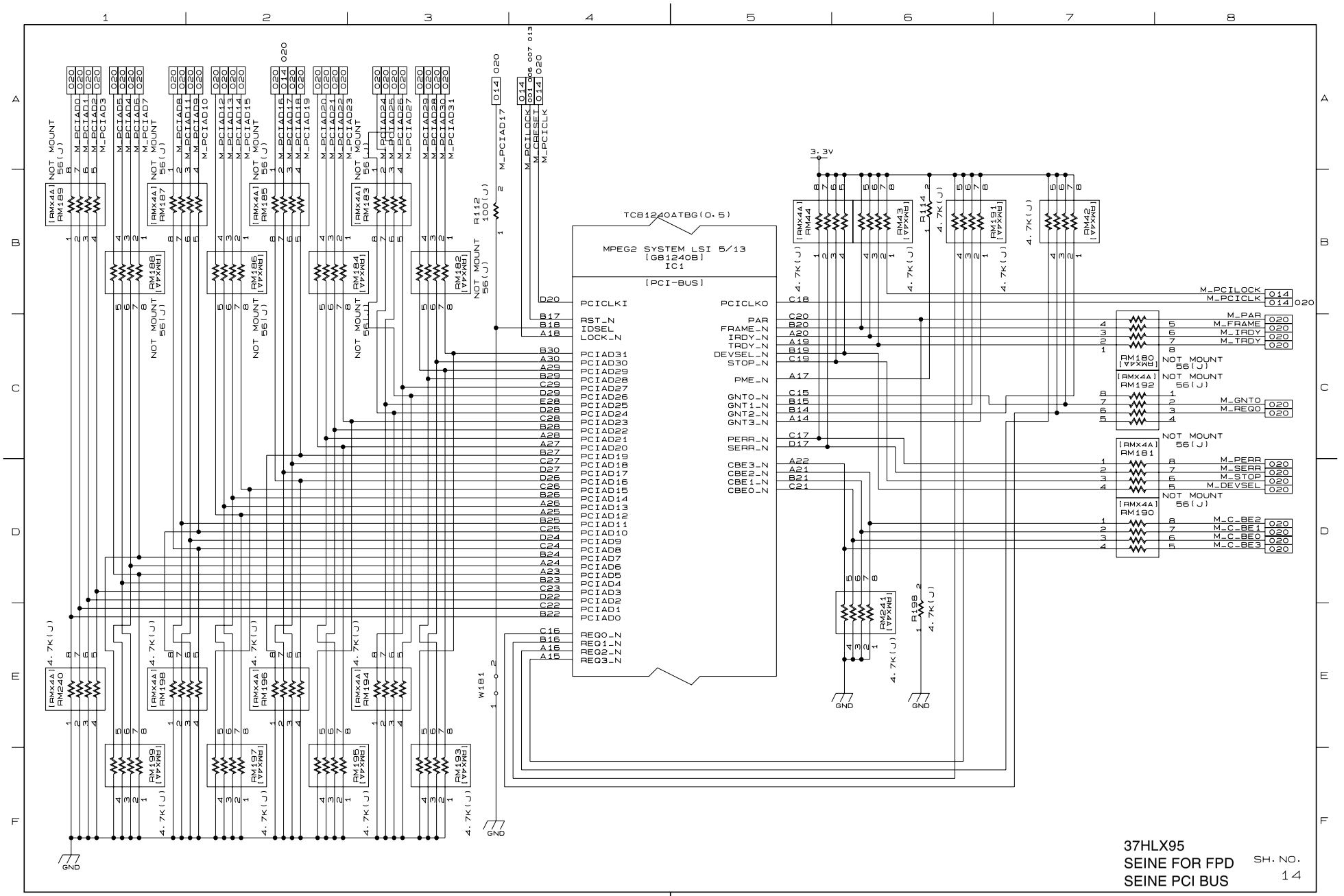
37HLX95
SEINE FOR FPD
UART0 INTERFACE

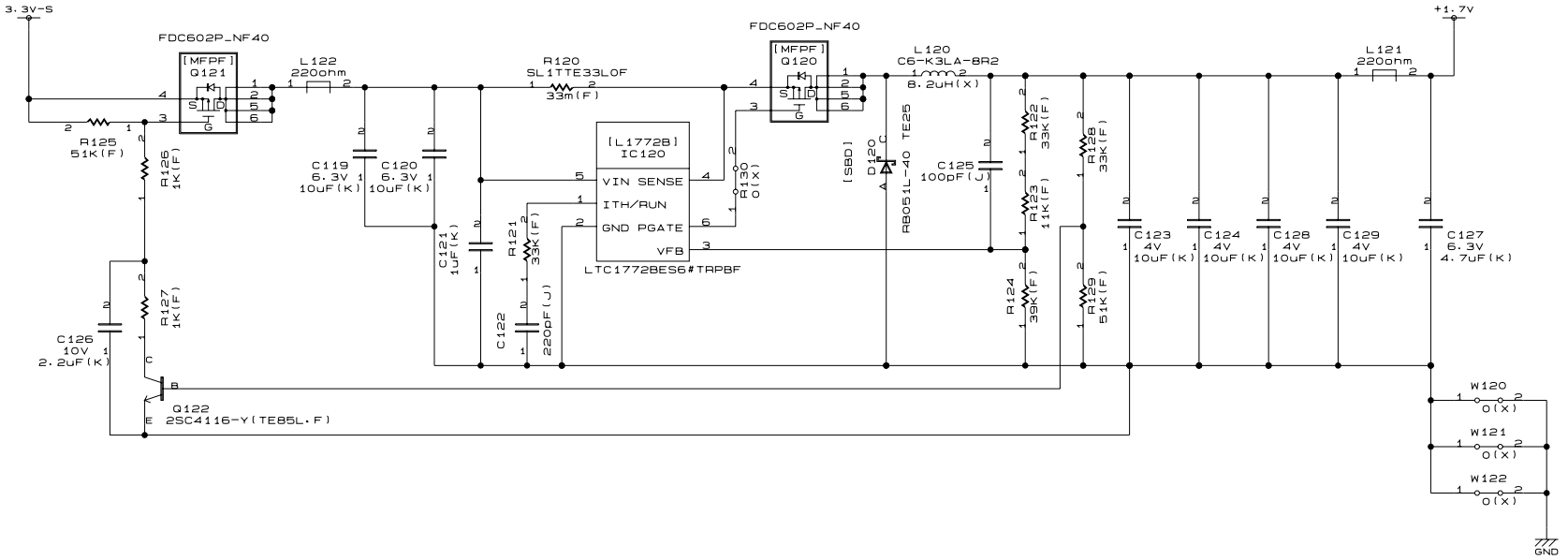
SH. NO.
12



37HLX95
SEINE FOR FPD
EJTAG CONNECTOR

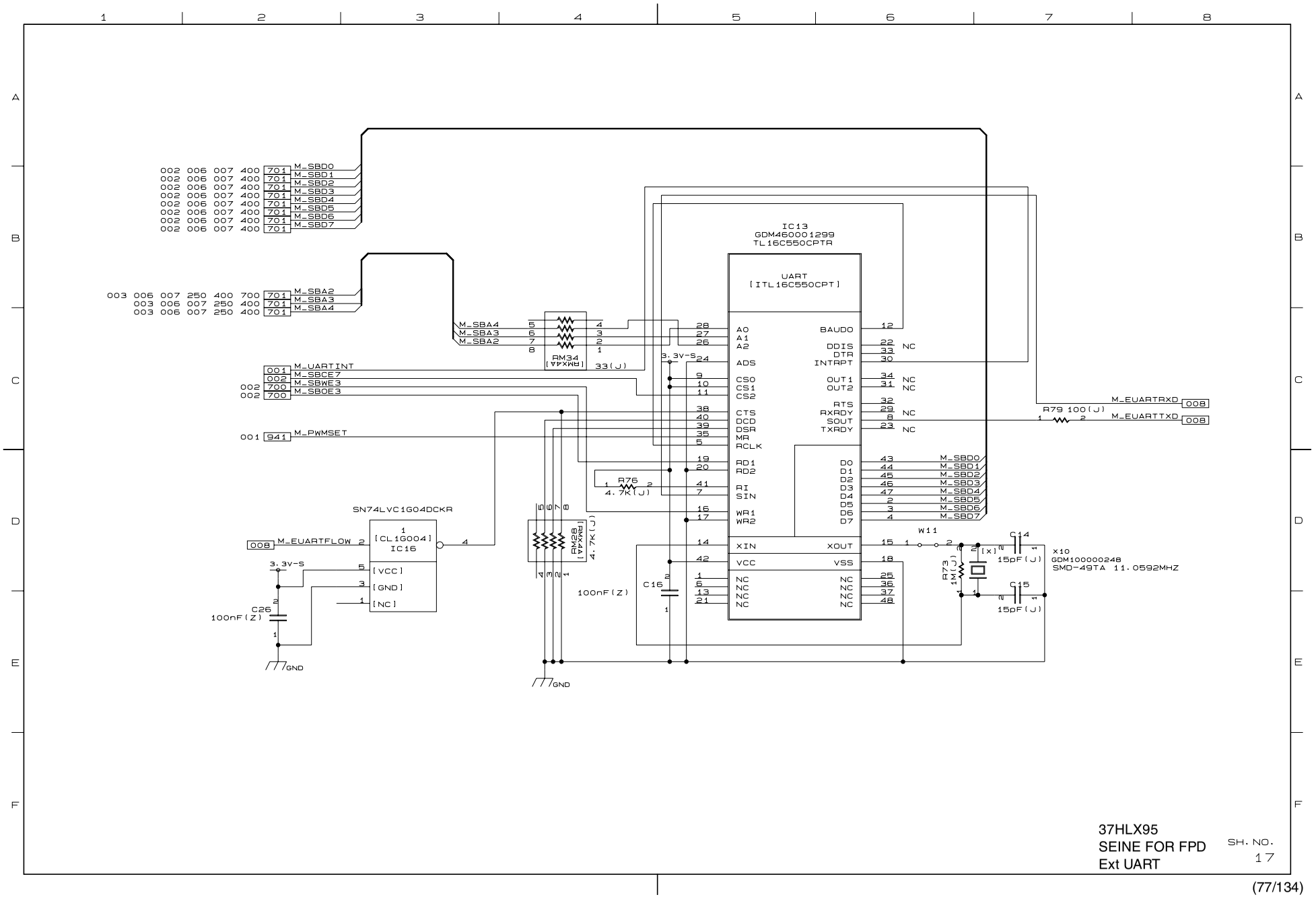
SH. NO.
13


TC81240ATBG(0.5)
MPEG2 SYSTEM LSI 5/13
[GB1240B]
IC1
[PCI-BUS]
PCICLKI
PCICLKO
RST_N
IDSEL
LOCK_N
PAR
FRAME_N
IRDY_N
TRDY_N
DEVSEL_N
STOP_N
PME_N
GNT0_N
GNT1_N
GNT2_N
GNT3_N
PERR_N
SERR_N
CBE3_N
CBE2_N
CBE1_N
CBE0_N
REQ0_N
REQ1_N
REQ2_N
REQ3_N
PCIAD31
PCIAD30
PCIAD29
PCIAD28
PCIAD27
PCIAD26
PCIAD25
PCIAD24
PCIAD23
PCIAD22
PCIAD21
PCIAD20
PCIAD19
PCIAD18
PCIAD17
PCIAD16
PCIAD15
PCIAD14
PCIAD13
PCIAD12
PCIAD11
PCIAD10
PCIAD9
PCIAD8
PCIAD7
PCIAD6
PCIAD5
PCIAD4
PCIAD3
PCIAD2
PCIAD1
PCIAD0
M_PCILOCK
M_PCICLK
M_CRESET
M_PCICLK
M_PCIAD0
M_PCIAD1
M_PCIAD2
M_PCIAD3
M_PCIAD4
M_PCIAD5
M_PCIAD6
M_PCIAD7
M_PCIAD8
M_PCIAD9
M_PCIAD10
M_PCIAD11
M_PCIAD12
M_PCIAD13
M_PCIAD14
M_PCIAD15
M_PCIAD16
M_PCIAD17
M_PCIAD18
M_PCIAD19
M_PCIAD20
M_PCIAD21
M_PCIAD22
M_PCIAD23
M_PCIAD24
M_PCIAD25
M_PCIAD26
M_PCIAD27
M_PCIAD28
M_PCIAD29
M_PCIAD30
M_PCIAD31
M_PAR
M_FRAME
M_IRDY
M_TRDY
M_GNT0
M_REQ0
M_PERR
M_SERR
M_STOP
M_DEVSEL
M_C_BE2
M_C_BE1
M_C_BE0
M_C_BE3
3.3V
GND
R112 100(J)
R114 4.7K(J)
R198 4.7K(J)
W181
NOT MOUNT 56(J)
4.7K(J)
37HLX95
SEINE FOR FPD
SEINE PCI BUS
SH. NO.
14



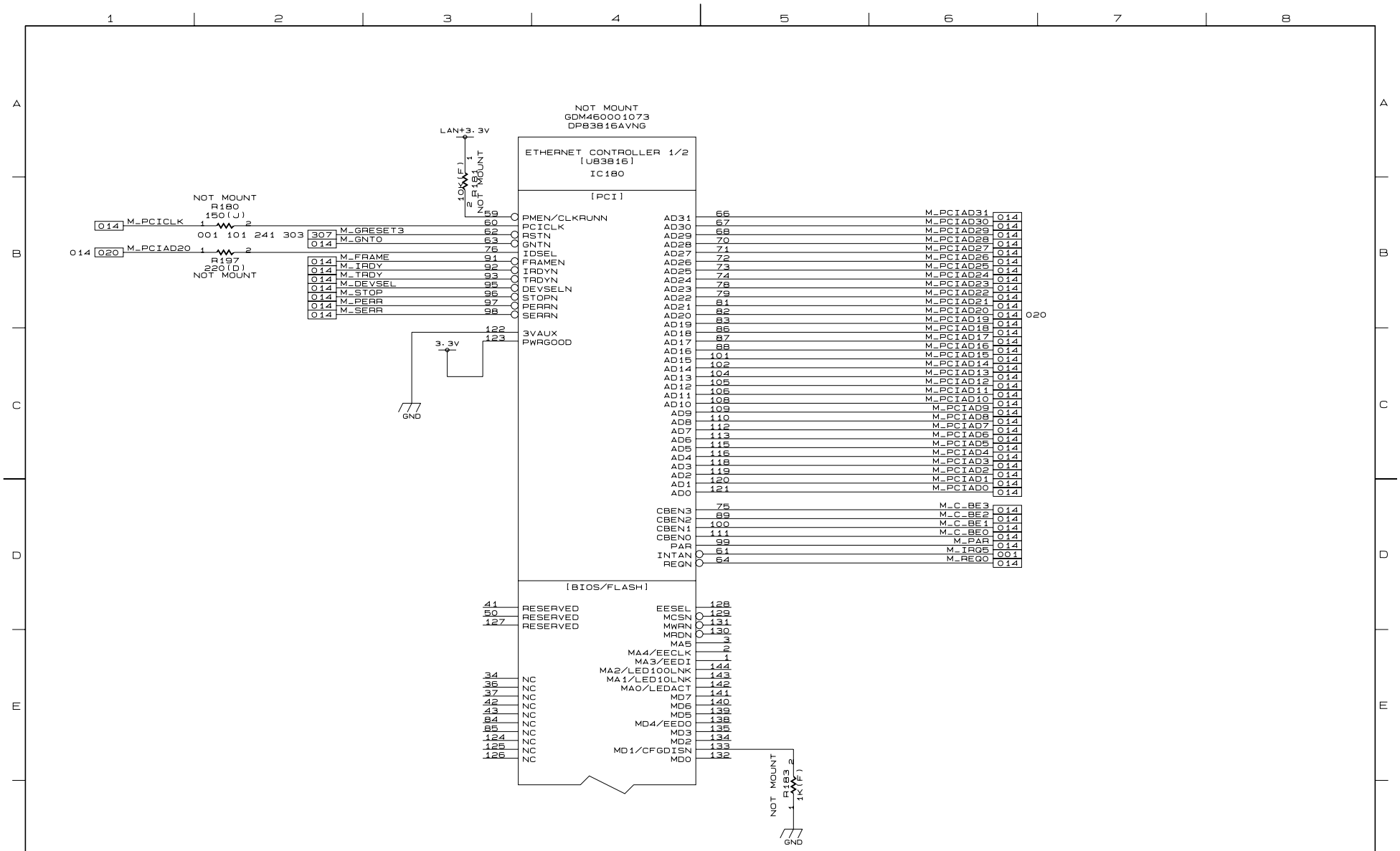
37HLX95
SEINE FOR FPD
MPU POWER

SH. NO.
016



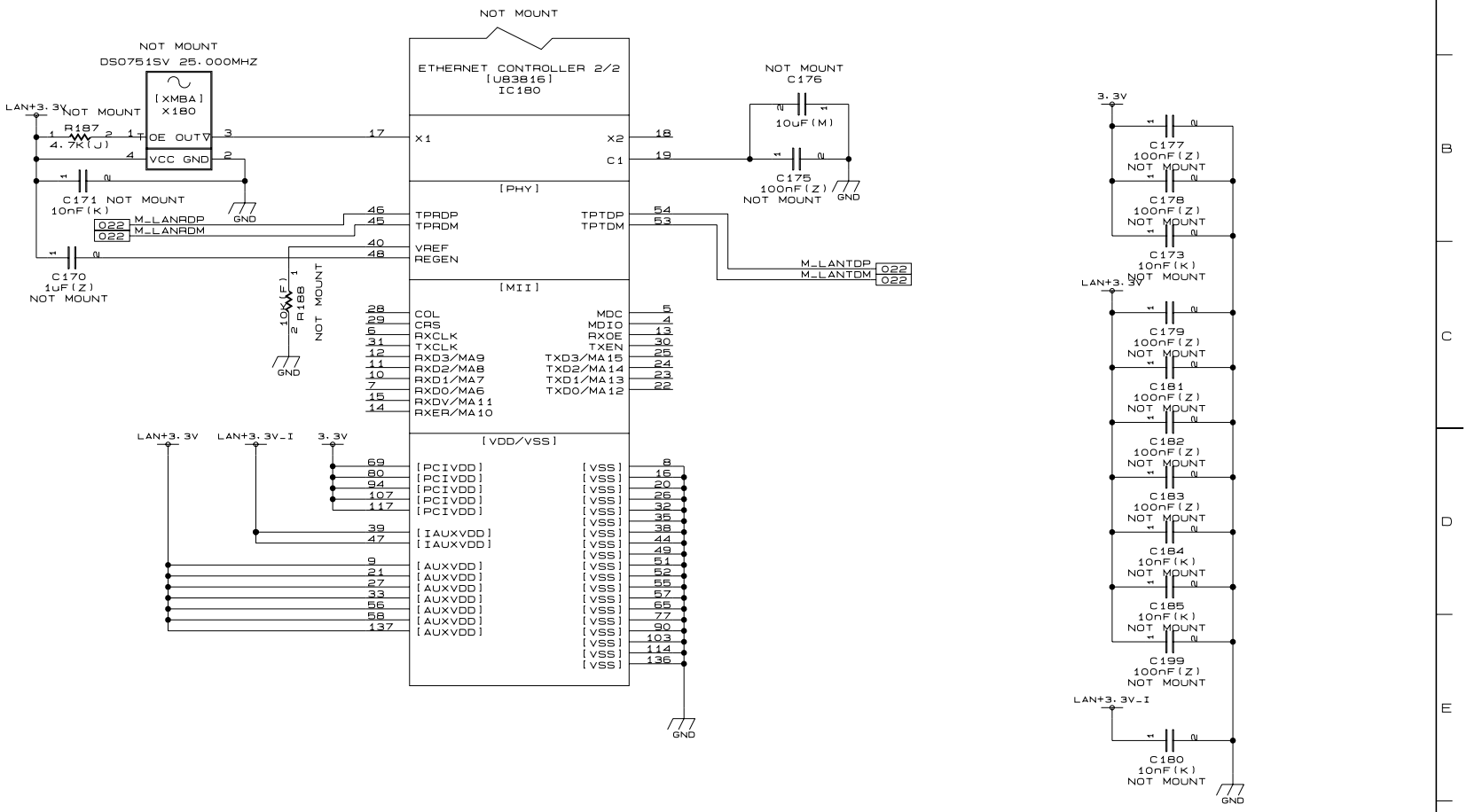
37HLX95
SEINE FOR FPD
Ext UART

SH. NO.
17



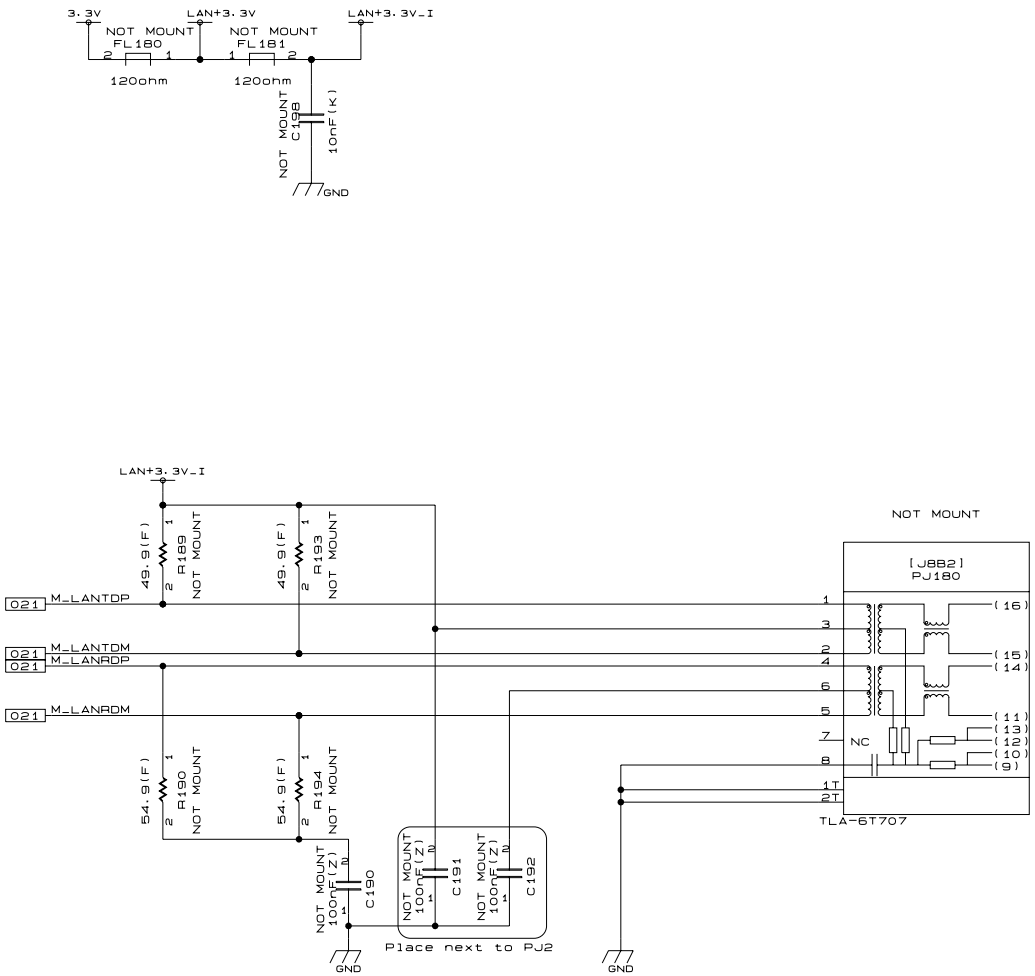
37HLX95
SEINE FOR FPD
MACPHYTER 1 (1/2)

SH. NO. 20



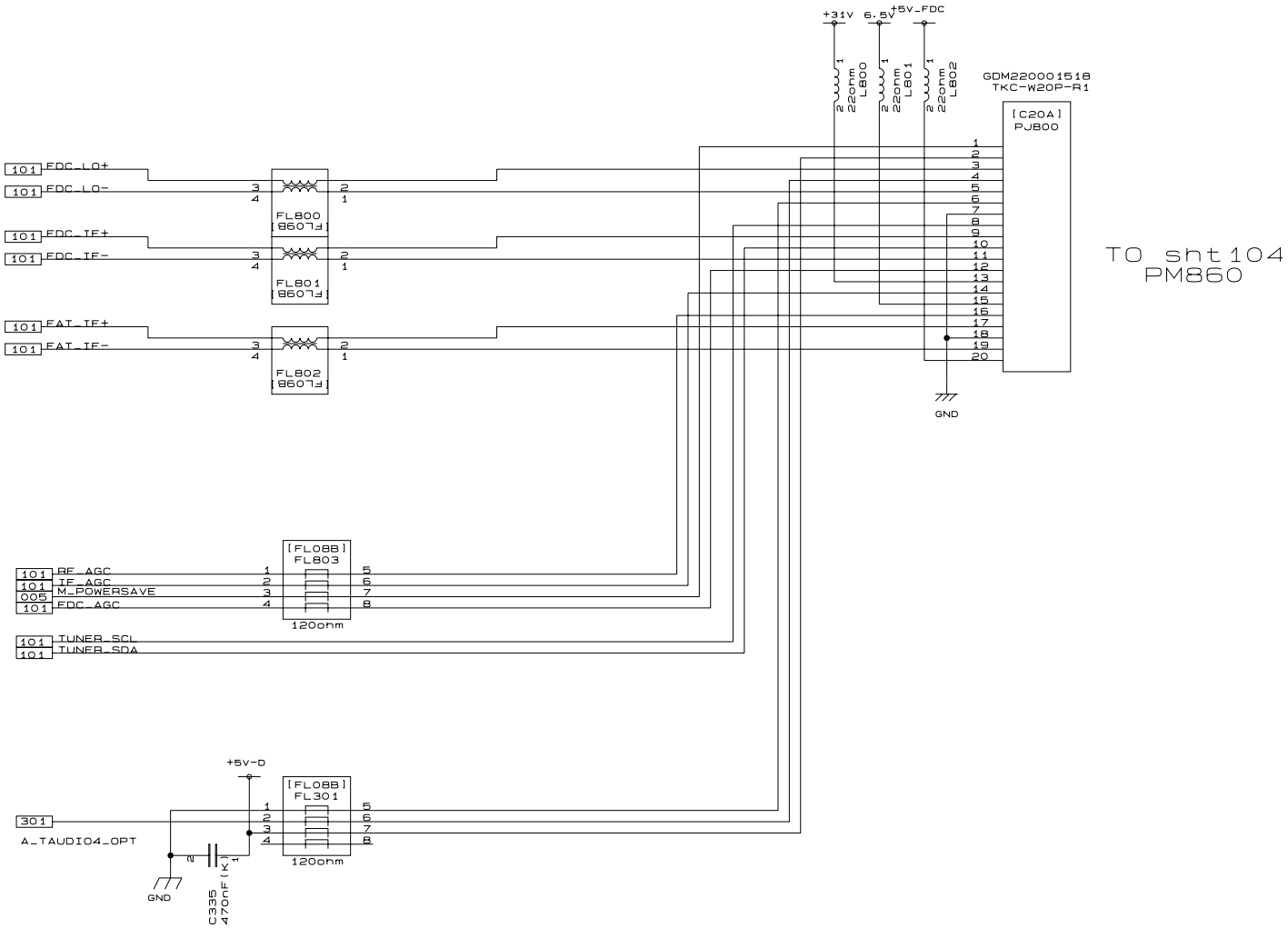
37HLX95
SEINE FOR FPD
MACPHYTER 1 (2/2)

SH. NO. 21



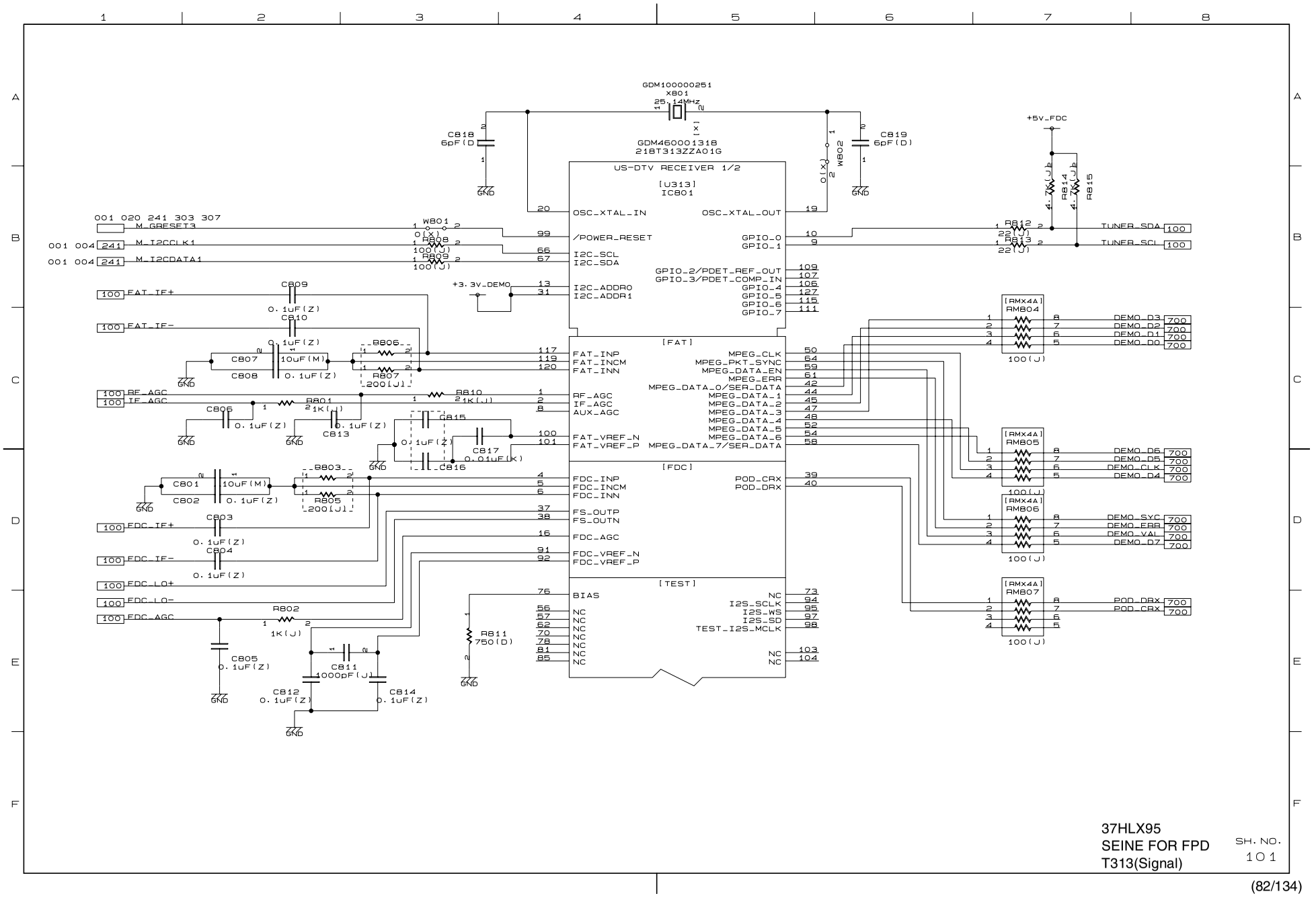
37HLX95
SEINE FOR FPD
RJ45

SH. NO.
22



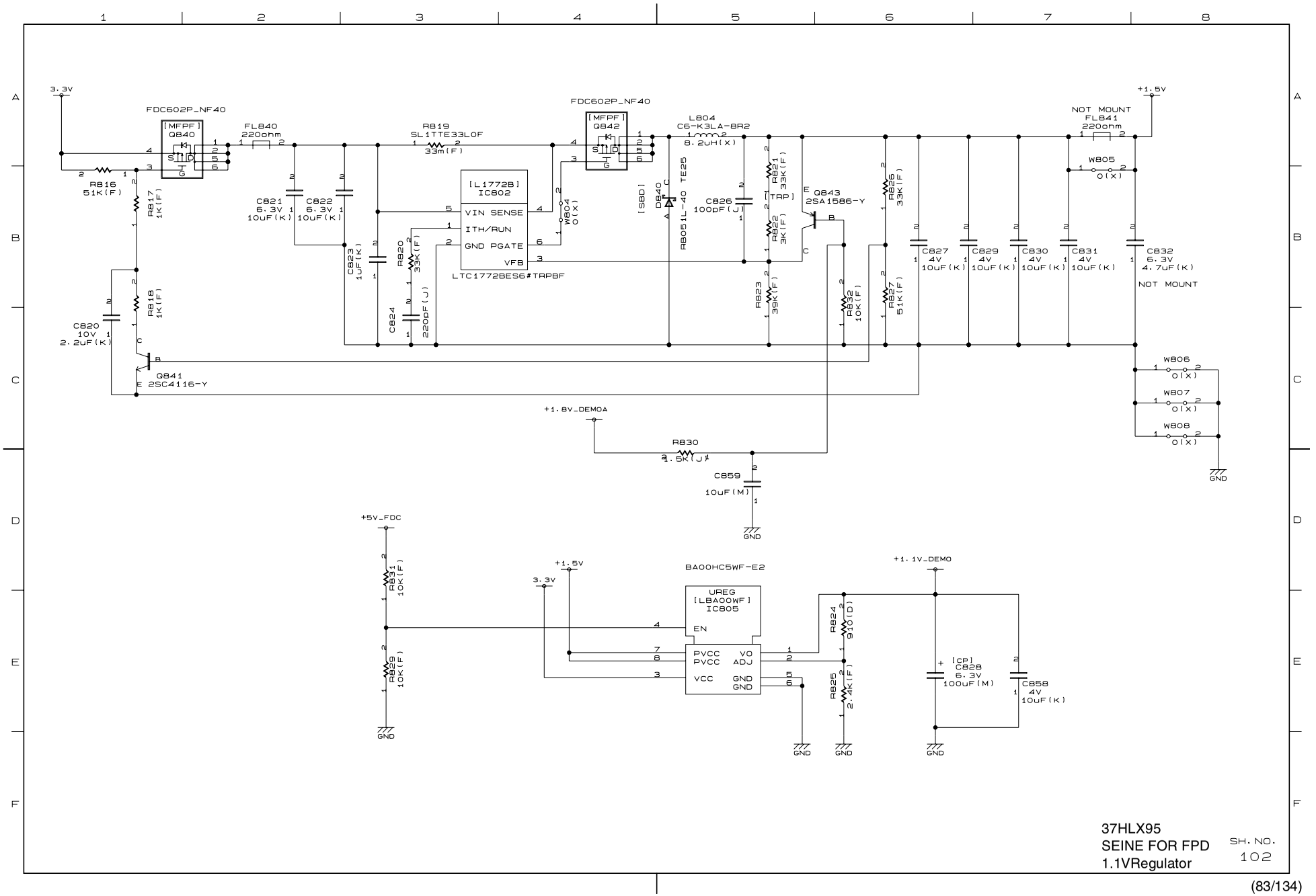
37HLX95
SEINE FOR FPD
TUENR CONNECTOR

SH. NO.
100



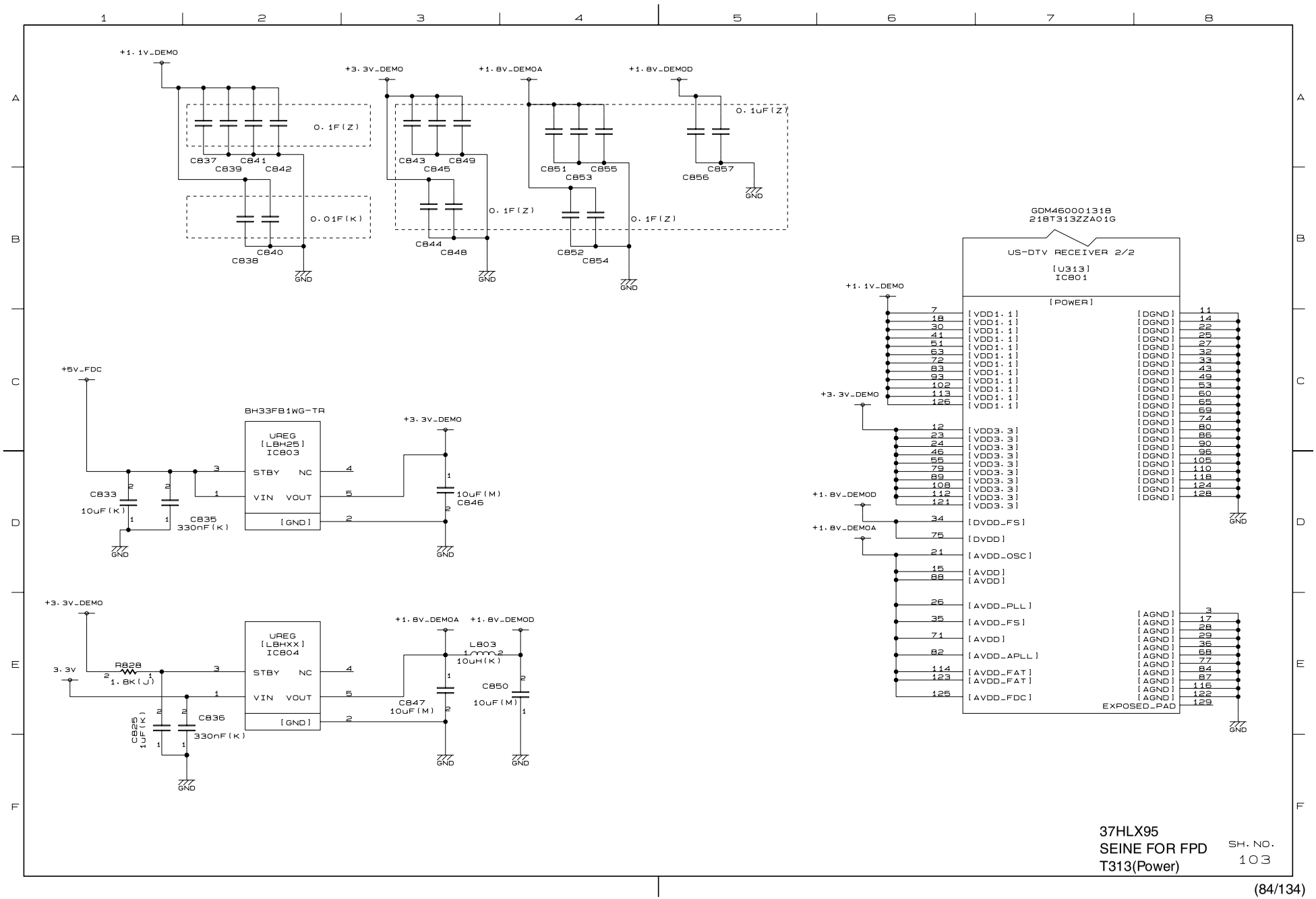
37HLX95
SEINE FOR FPD
T313(Signal)

SH. NO.
101



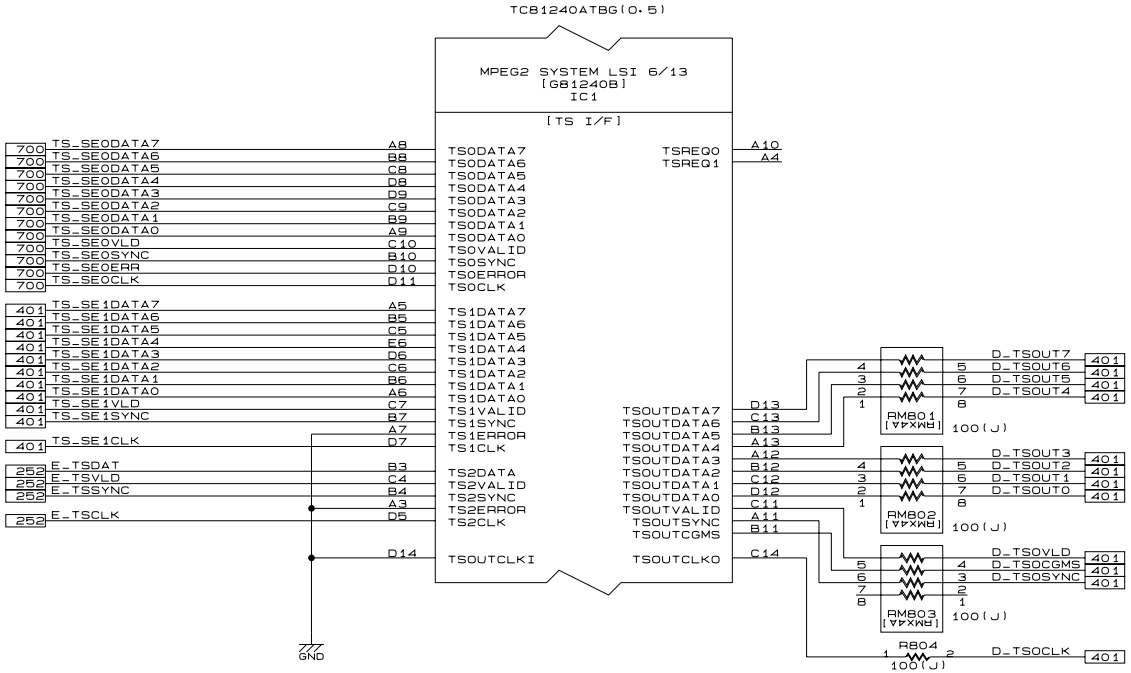
37HLX95
SEINE FOR FPD
1.1VRegulator

SH. NO.
102



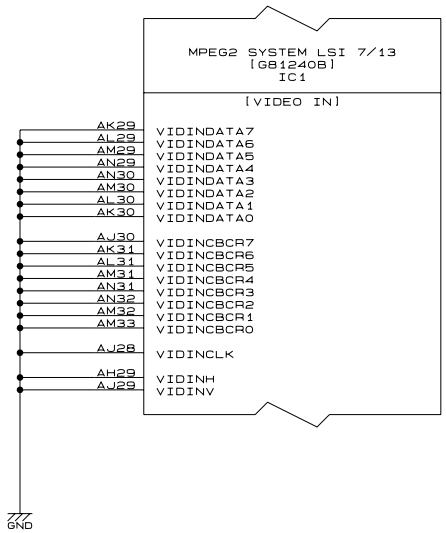
37HLX95
SEINE FOR FPD
T313(Power)

SH. NO.
103



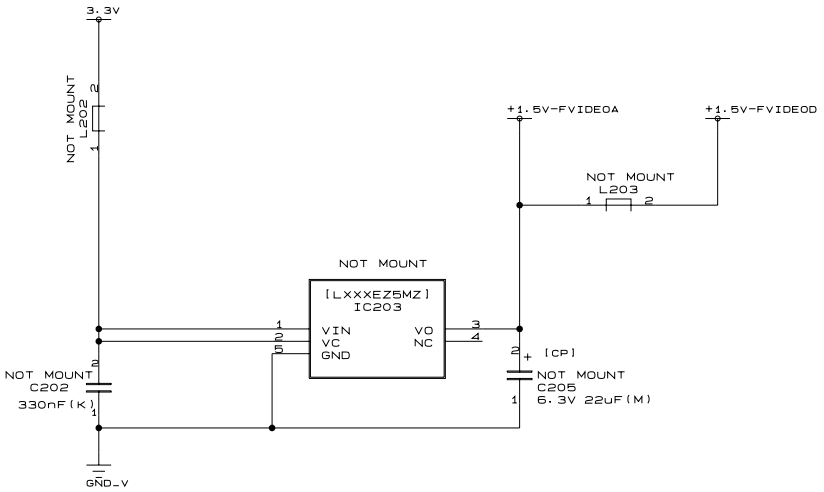
37HLX95
SEINE FOR FPD
Seine TS I/F

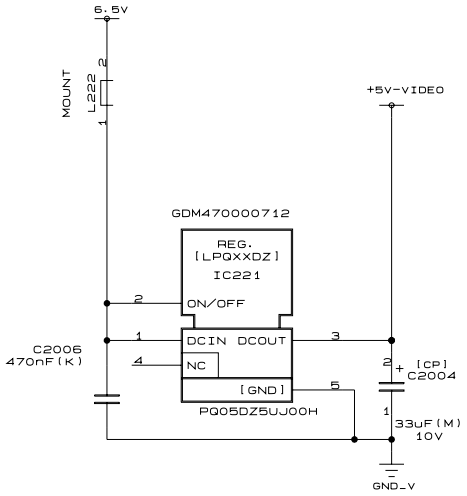
SH. NO.
150

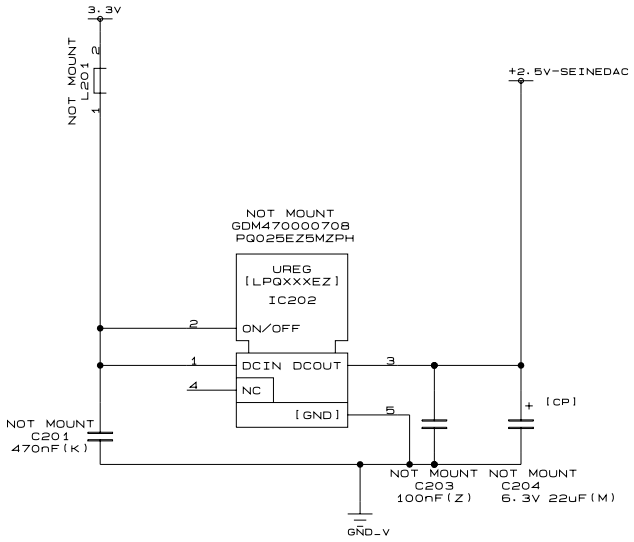


37HLX95
SEINE FOR FPD
SEINE CAPTURE IN

SH. NO.
200

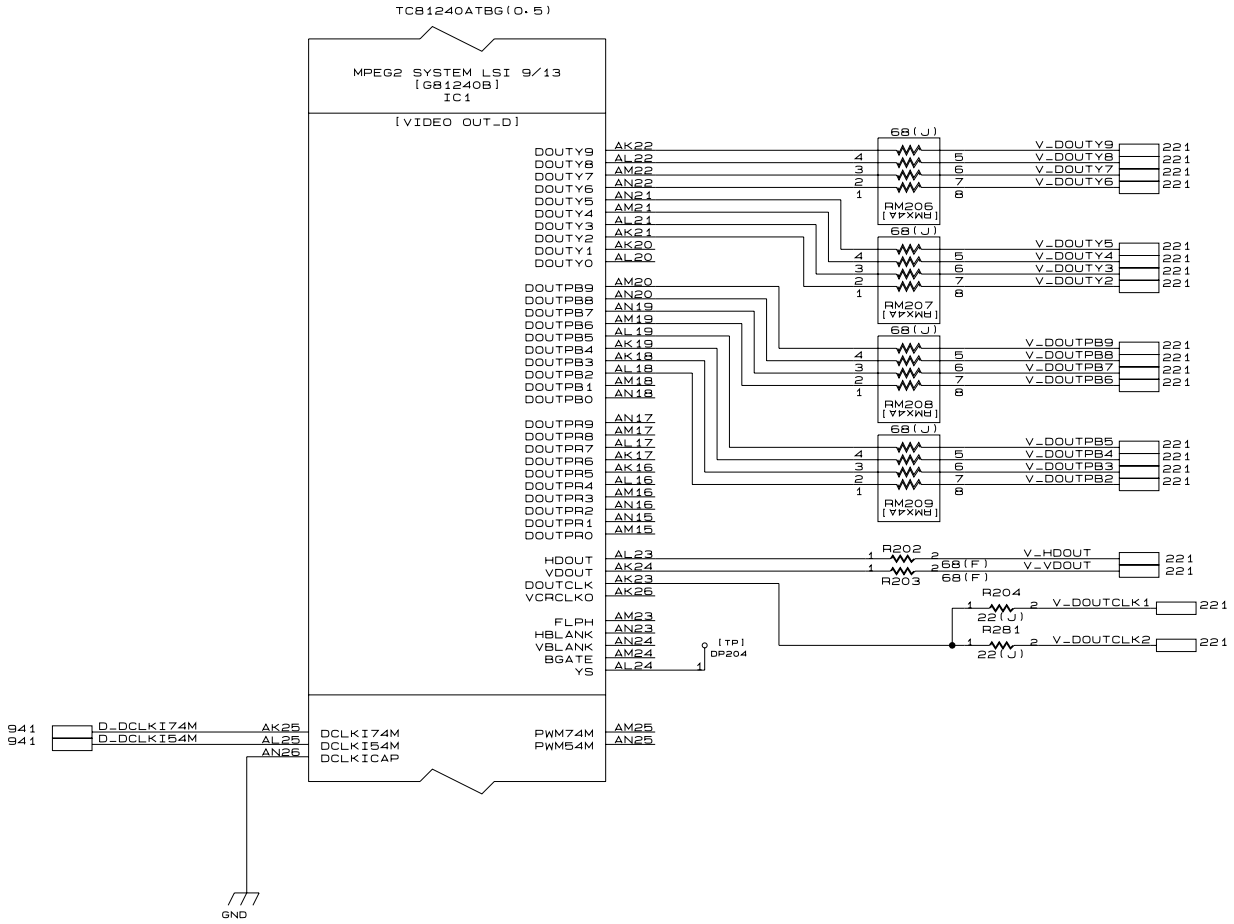






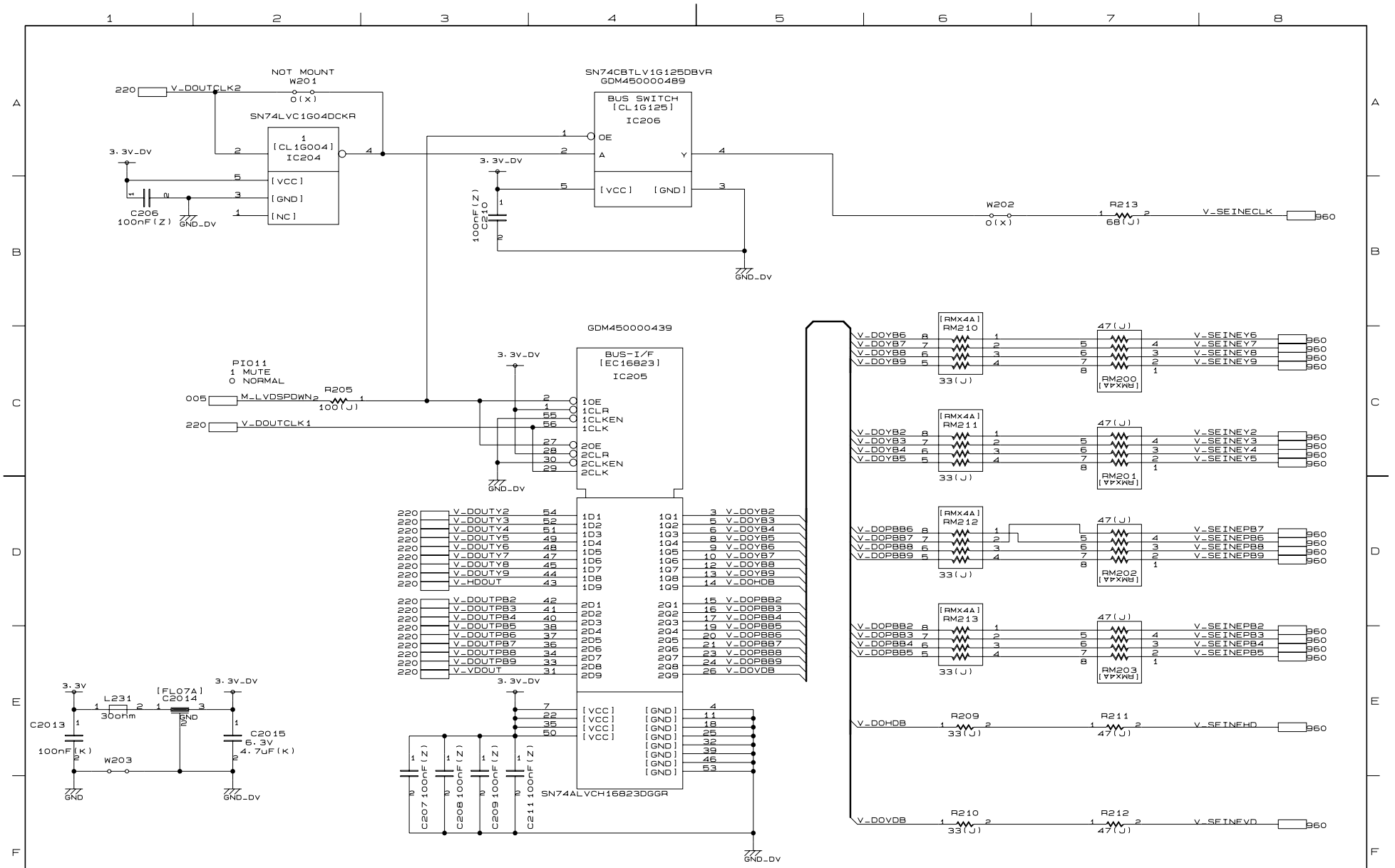
37HLX95
SEINE FOR FPD
VIDEO POWER

SH. NO.
210



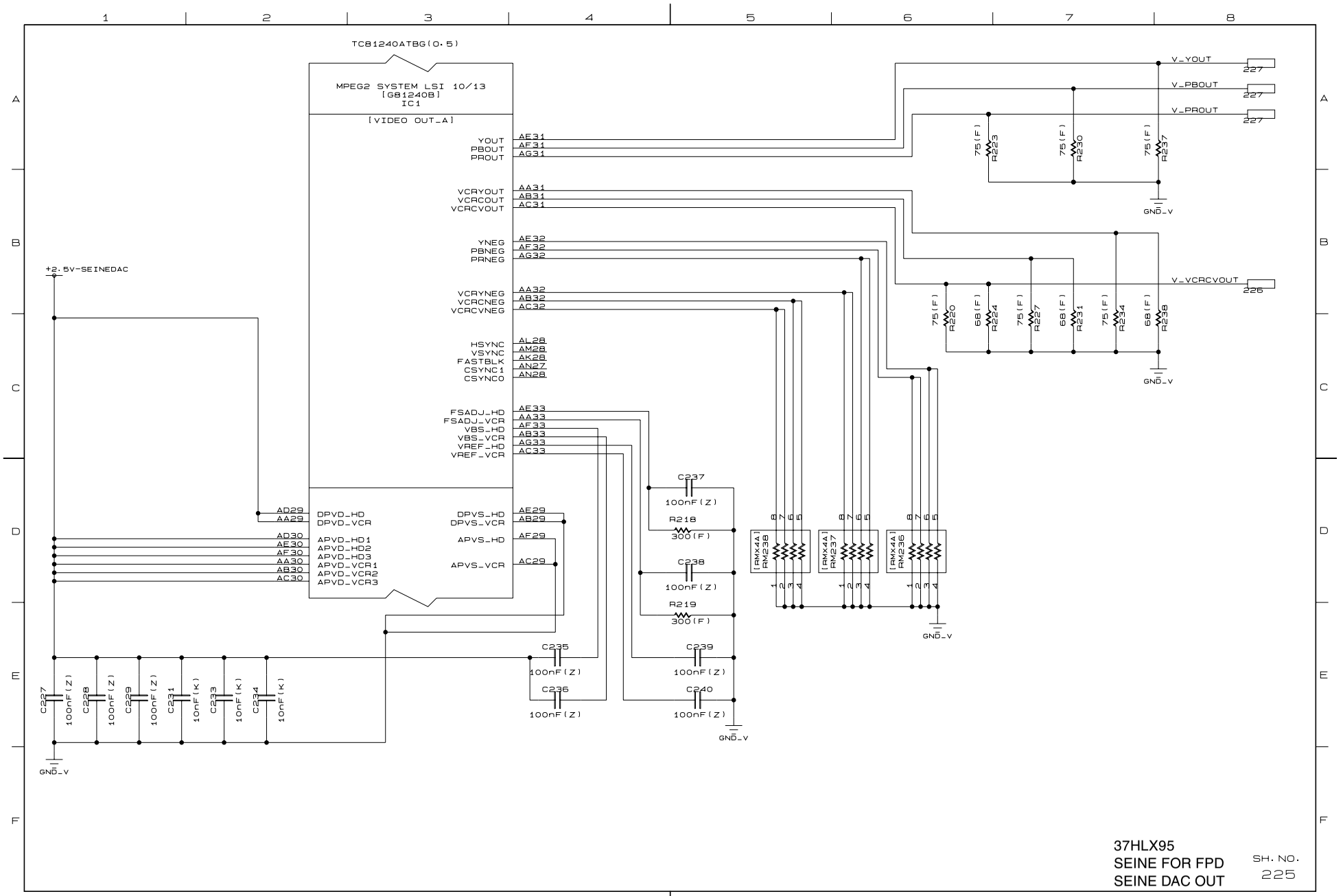
37HLX95
SEINE FOR FPD
SEINE DIGITAL OUT

SH. NO.
220



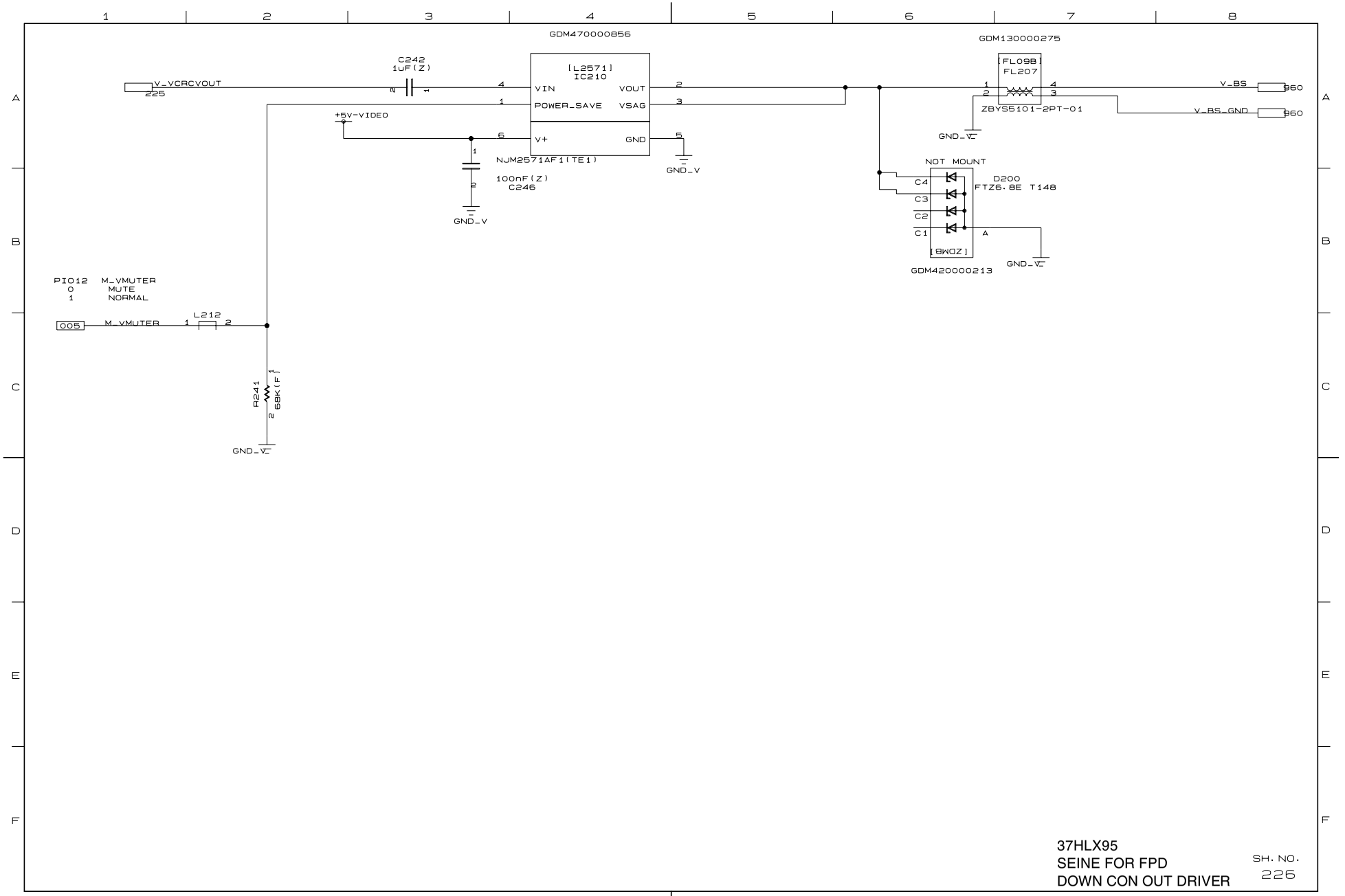
37HLX95
SEINE FOR FPD
SEINE-BEP IF

SH. NO.
221



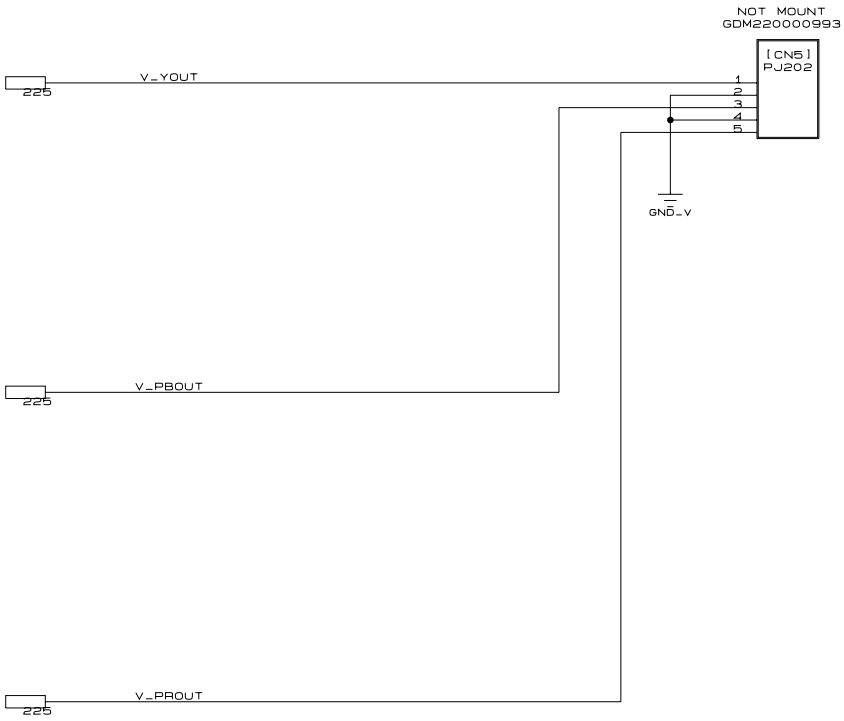
37HLX95
SEINE FOR FPD
SEINE DAC OUT

SH. NO.
225



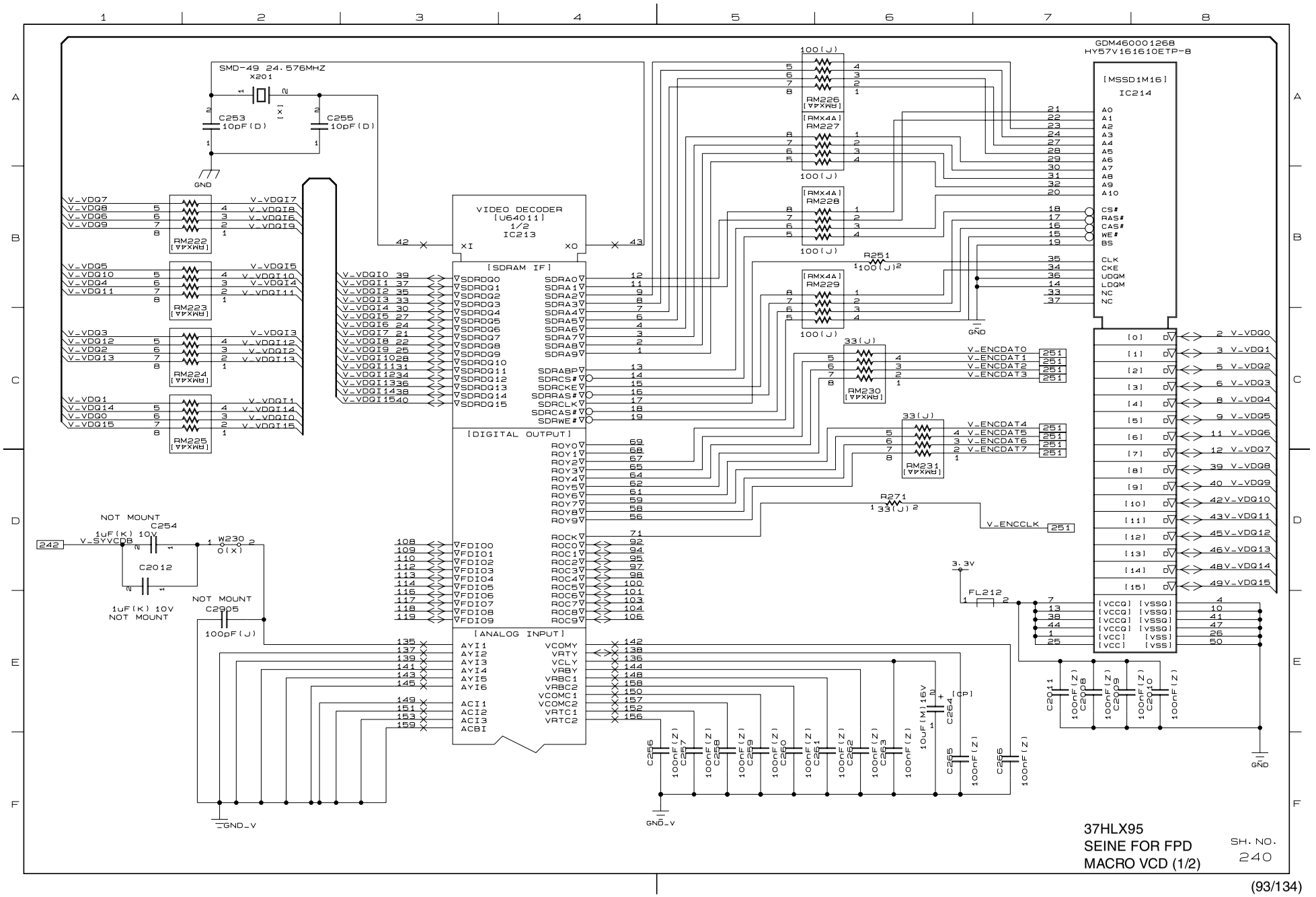
37HLX95
SEINE FOR FPD
DOWN CON OUT DRIVER

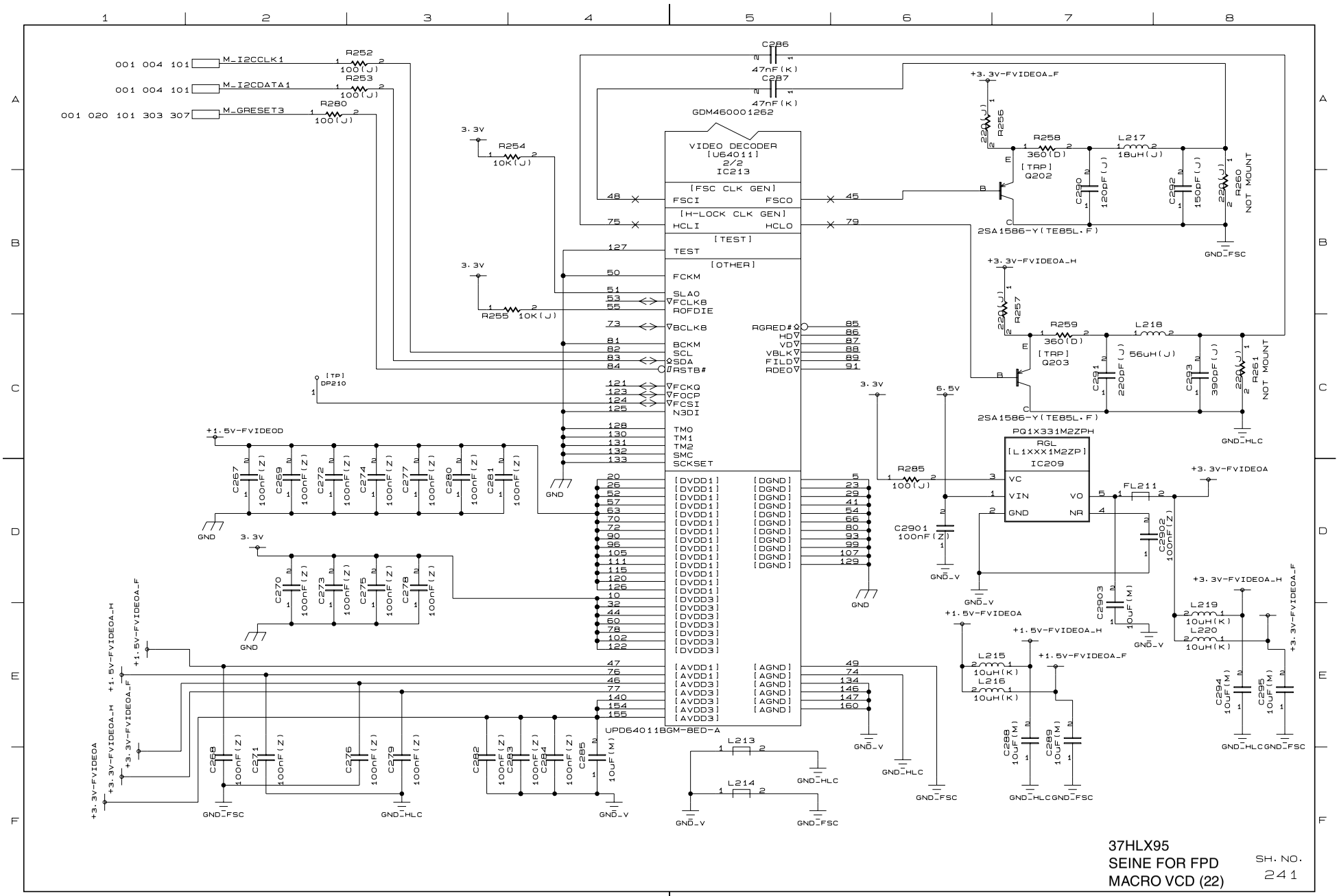
SH. NO.
226

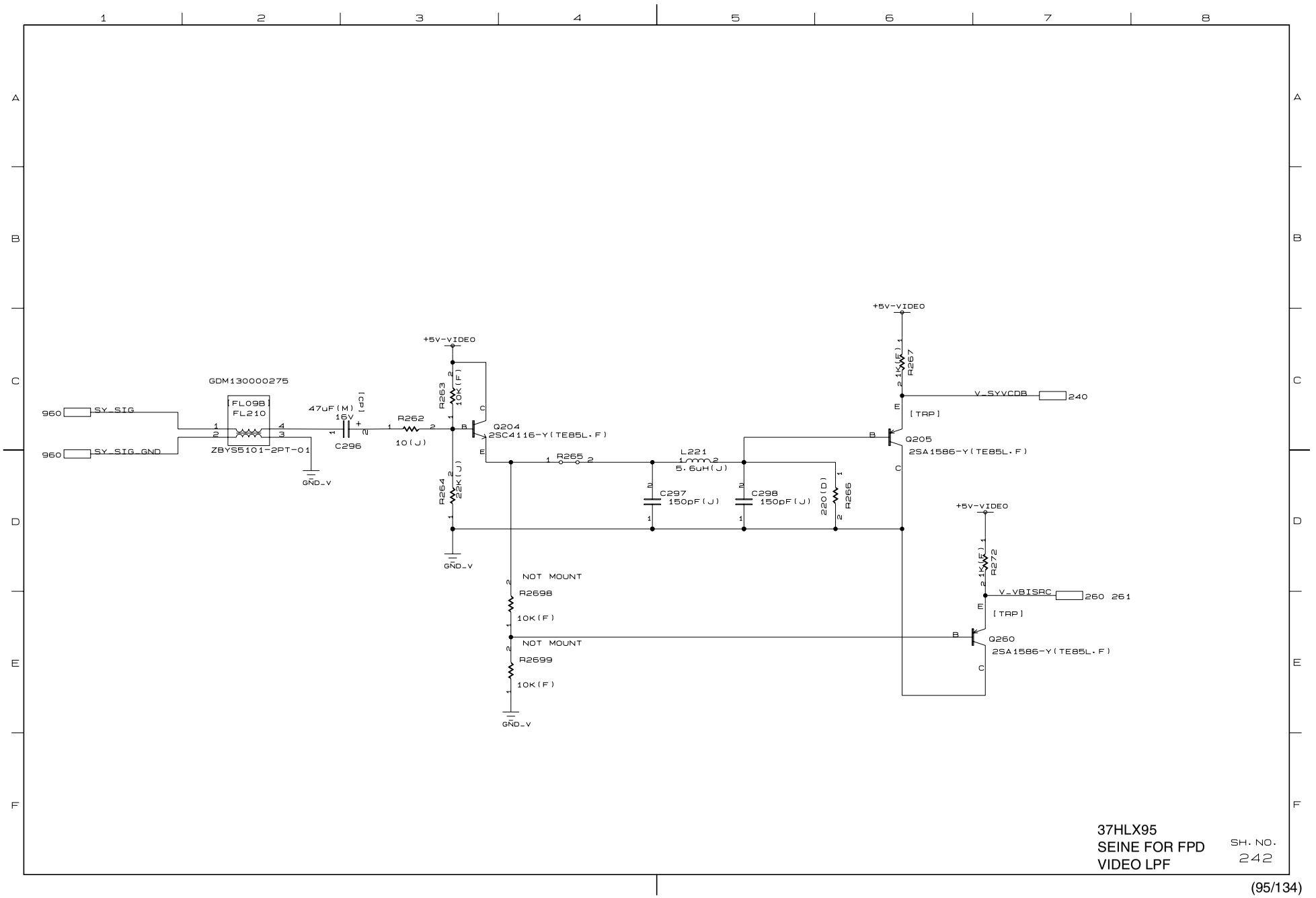


37HLX95
SEINE FOR FPD
HD OUT LPF

SH. NO.
227

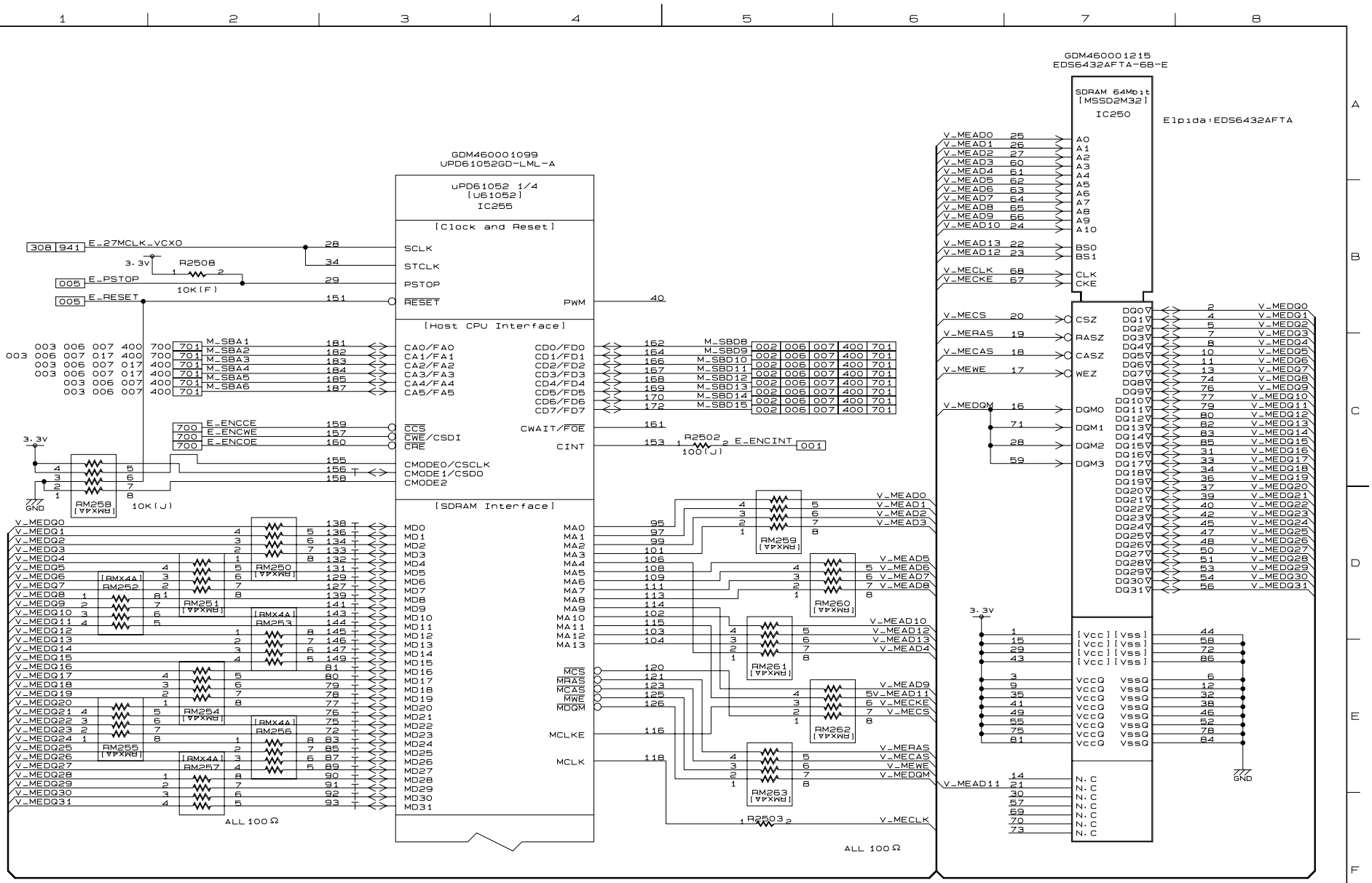

SMD-49 24.576MHZ
X201
C253 10pF(D)
C255 10pF(D)
GND
VIDEO DECODER
[U64011]
1/2
IC213
XI
XO
[SDRAM IF]
[DIGITAL OUTPUT]
[ANALOG INPUT]
GDM460001268
HY57V161610ETP-8
[MSSD1M16]
IC214
RM222
RM223
RM224
RM225
RM226
RM227
RM228
RM229
RM230
RM231
R251 100(J)2
R271 33(J)2
V_ENCDAT0
V_ENCDAT1
V_ENCDAT2
V_ENCDAT3
V_ENCDAT4
V_ENCDAT5
V_ENCDAT6
V_ENCDAT7
V_ENCCLK
NOT MOUNT
C254 1uF(K) 10V
V_SYVCDB
W230 0(X)
C2012 1uF(K) 10V NOT MOUNT
C2905 100pF(J)
3.3V
FL212
GND_V
C256 100nF(Z)
C257 100nF(Z)
C258 100nF(Z)
C259 100nF(Z)
C260 100nF(Z)
C261 100nF(Z)
C262 100nF(Z)
C263 100nF(Z)
C264 10uF(M)16V [CP]
C265 100nF(Z)
C266 100nF(Z)
C2011 100nF(Z)
C2008 100nF(Z)
C2009 100nF(Z)
C2010 100nF(Z)
37HLX95
SEINE FOR FPD
MACRO VCD (1/2)
SH. NO.
240

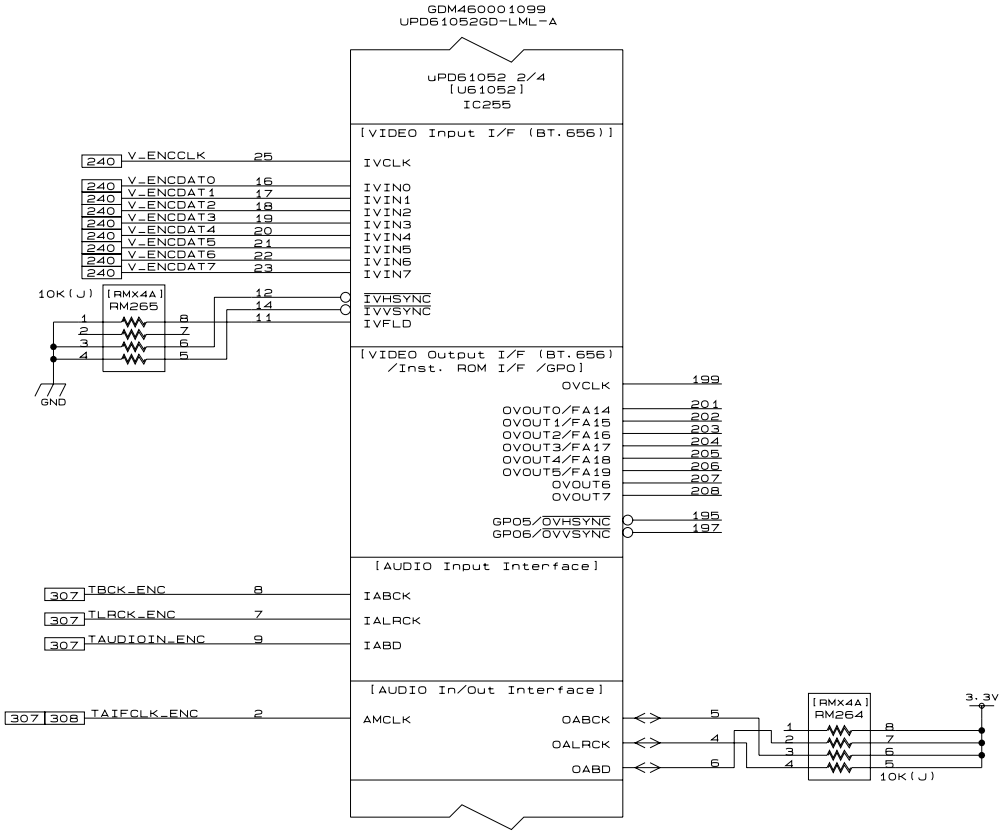

VIDEO DECODER
[U64011]
2/2
IC213
UPD64011BGM-8ED-A
M_I2CCLK1
M_I2CDATA1
M_GRESET3
R252
R253
R280
R254
R255
C286
C287
GDM460001262
[FSC CLK GEN]
[H-LOCK CLK GEN]
[TEST]
[OTHER]
FSCI
FSCO
HCLI
HCLO
TEST
FCKM
SLAO
FCLK8
ROFDIE
BCLK8
BCKM
SCL
SDA
RSTB#
FCKQ
FOCP
FCSI
N3DI
TMO
TM1
TM2
SMC
SCKSET
RGRED#
HD
VD
VBLK
FILD
RDEO
[DVDD1]
[DVDD3]
[DGND]
[AVDD1]
[AVDD3]
[AGND]
R256
R257
R258
R259
L217
L218
Q202
Q203
2SA1586-Y(TE85L,F)
R260
R261
NOT MOUNT
PQ1X331M2ZPH
RGL
[L1XXX1M2ZP]
IC209
VC
VIN
VO
GND
NR
R285
FL211
L213
L214
L215
L216
L219
L220
C2901
C2902
C2903
C294
C295
C288
C289
+3.3V-FVIDEOA_F
+3.3V-FVIDEOA_H
+3.3V-FVIDEOA
+1.5V-FVIDEOD
+1.5V-FVIDEOA
+1.5V-FVIDEOA_H
+1.5V-FVIDEOA_F
3.3V
6.5V
GND
GND_FSC
GND_HLC
GND_V
37HLX95
SEINE FOR FPD
MACRO VCD (22)
SH. NO.
241



37HLX95
SEINE FOR FPD
VIDEO LPF

SH. NO.
242

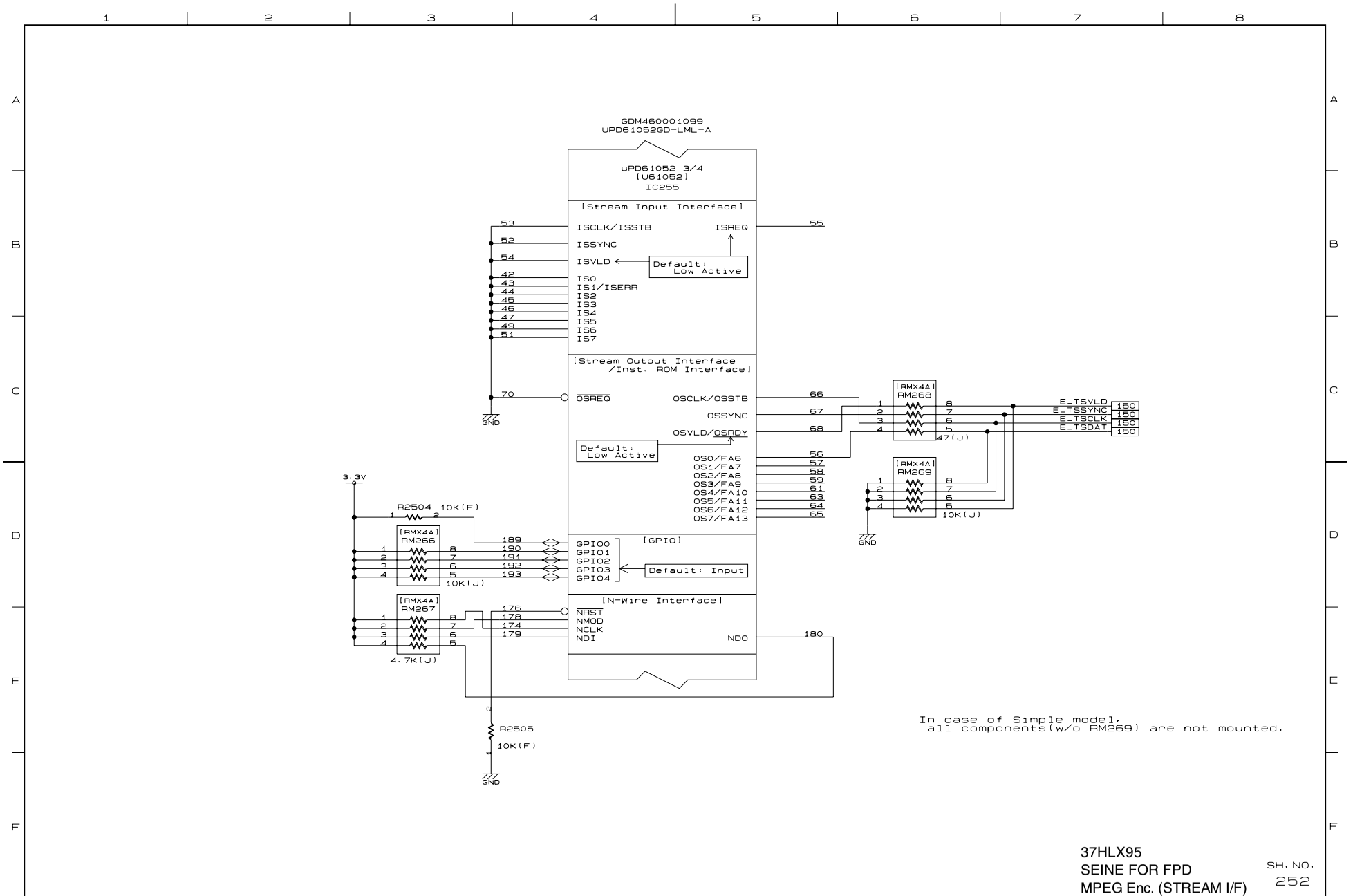

GDM460001099
UPD61052GD-LML-A
uPD61052 1/4
[U61052]
IC255
[Clock and Reset]
[Host CPU Interface]
[SDRAM Interface]
GDM460001215
EDS6432AFTA-6B-E
SDRAM 64Mbit
[MSSD2M32]
IC250
Elpida:EDS6432AFTA
E_27MCLK_VCXO
E_PSTOP
E_RESET
R2508
10K(F)
RM258
10K(J)
R2502
100(J)
E_ENCINT
R2503
ALL 100Ω
37HLX95
SEINE FOR FPD
MPEG Enc. (CLK, SDRAM)
SH. NO.
250



In case of Simple model.
all components are not mounted.

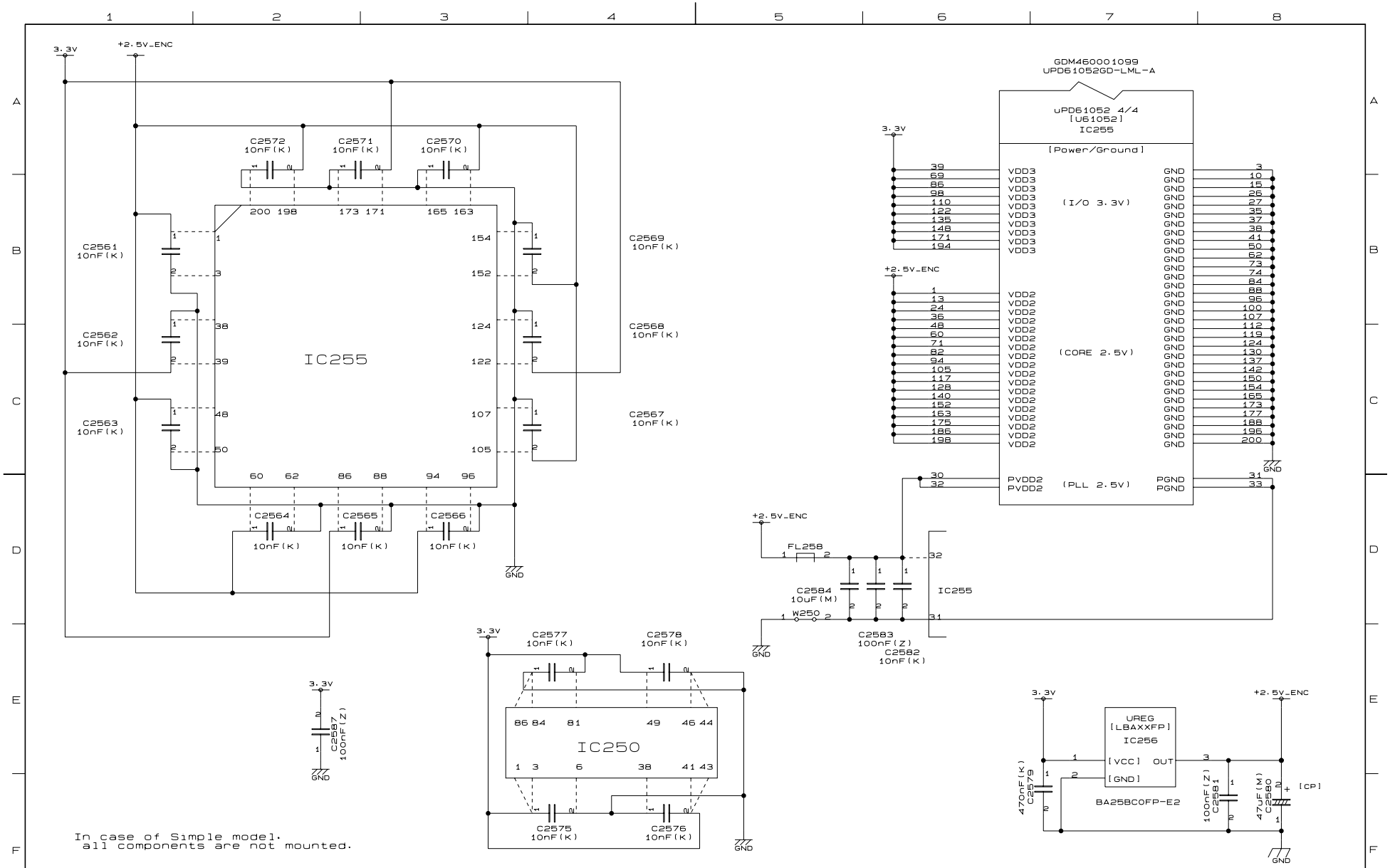
37HLX95
SEINE FOR FPD
MPEG Enc. (AV I/F)

SH. NO.
251



37HLX95
SEINE FOR FPD
MPEG Enc. (STREAM I/F)

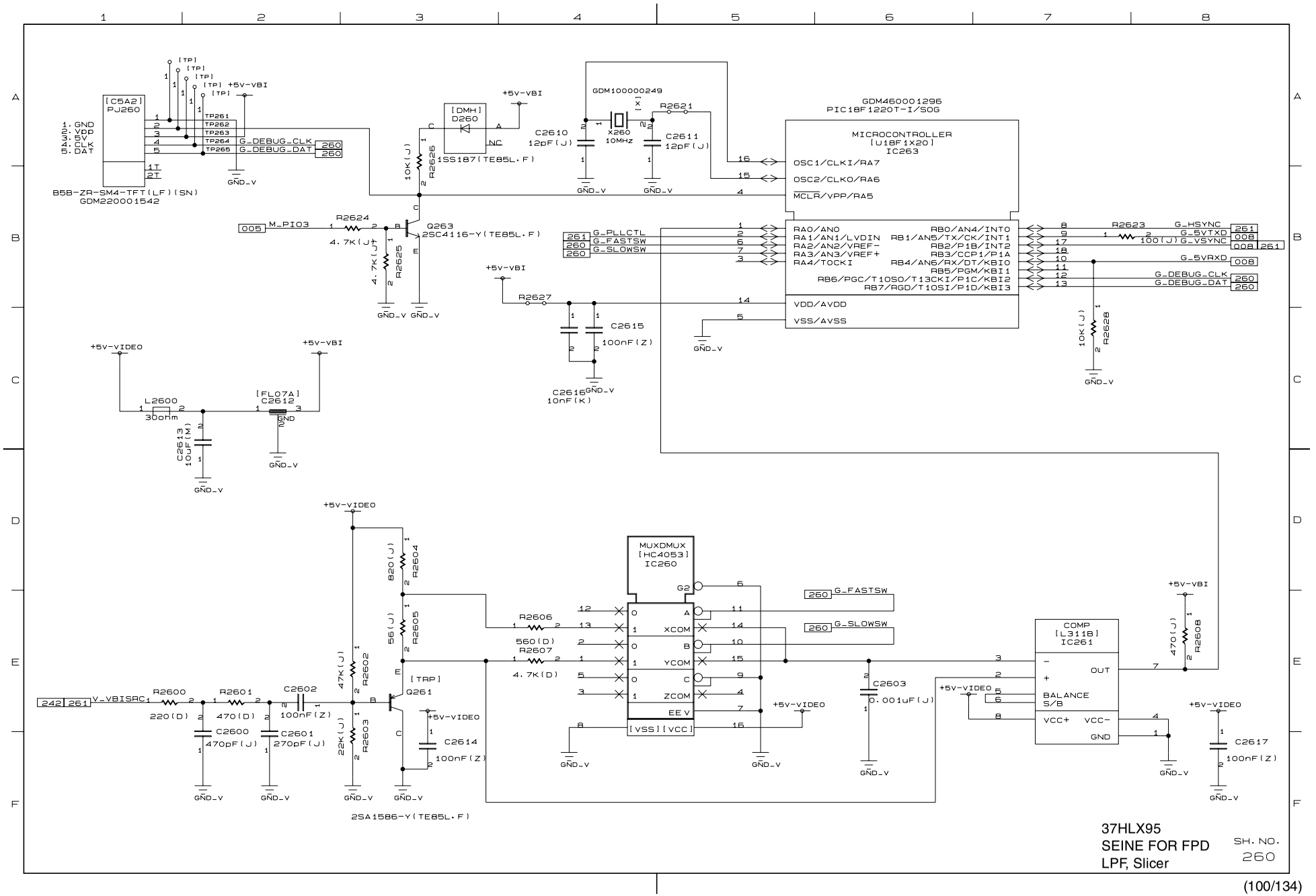
SH. NO.
252

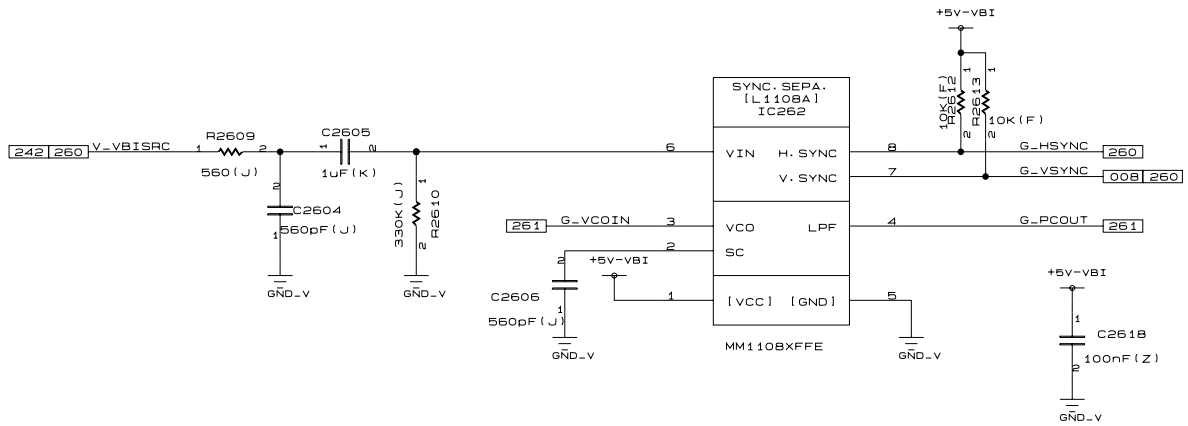


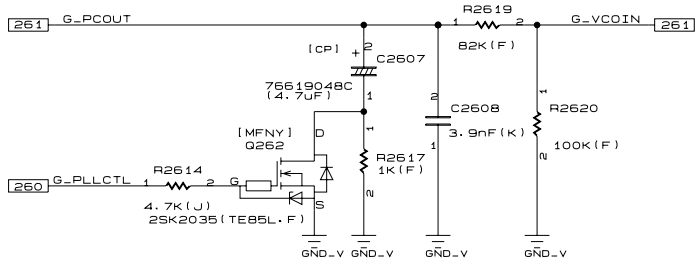
In case of Simple model.
all components are not mounted.

37HLX95
SEINE FOR FPD
MPEG Enc. (POWER)

SH. NO.
253

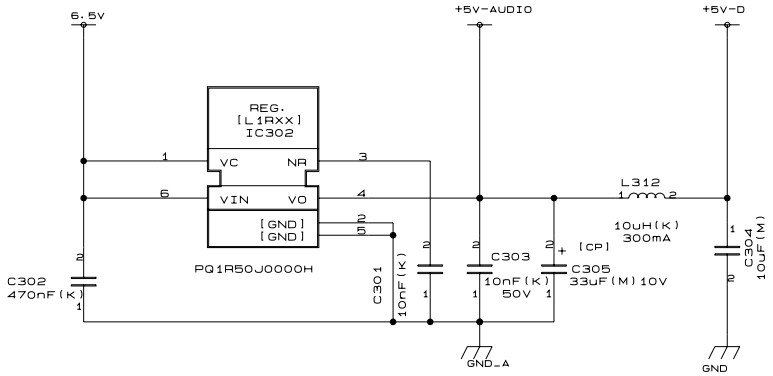

[C5A2]
PJ260
1. GND
2. VDD
3. 5V
4. CLK
5. DAT
B5B-ZR-SM4-TFT(LF)(SN)
GDM220001542
[TP]
TP261
TP262
TP263
TP264
TP265
G_DEBUG_CLK
G_DEBUG_DAT
260
GND_V
+5V-VBI
[DMH]
D260
1SS187(TE85L.F)
10K(J)
R2626
GDM100000249
X260
10MHz
C2610
12pF(J)
C2611
12pF(J)
R2621
GDM460001296
PIC18F1220T-I/SOG
MICROCONTROLLER
[U18F1X20]
IC263
OSC1/CLKI/RA7
OSC2/CLKO/RA6
MCLR/VPP/RA5
RA0/AN0
RA1/AN1/LVDIN
RA2/AN2/VREF-
RA3/AN3/VREF+
RA4/T0CKI
RB0/AN4/INT0
RB1/AN5/TX/CK/INT1
RB2/P1B/INT2
RB3/CCP1/P1A
RB4/AN6/RX/DT/KBI0
RB5/PGM/KBI1
RB6/PGC/T1OSO/T13CKI/P1C/KBI2
RB7/RGD/T1OSI/P1D/KBI3
VDD/AVDD
VSS/AVSS
005
M_PIO3
R2624
4.7K(J)
Q263
2SC4116-Y(TE85L.F)
R2625
4.7K(J)
261
G_PLLCTL
260
G_FASTSW
260
G_SLOWSW
R2623
100(J)
G_HSYNC
G_5VTXD
G_VSYNC
G_5VRXD
G_DEBUG_CLK
G_DEBUG_DAT
008
261
R2627
C2615
100nF(Z)
C2616
10nF(K)
R2628
10K(J)
+5V-VIDEO
L2600
30ohm
[FL07A]
C2612
GND
C2613
10uF(M)
MUXDMUX
[HC4053]
IC260
G2
A
XCOM
B
YCOM
C
ZCOM
EE
[VSS][VCC]
R2606
560(D)
R2607
4.7K(D)
820(J)
R2604
56(J)
R2605
47K(J)
R2602
[TRP]
Q261
2SA1586-Y(TE85L.F)
242
261
V_VBISRC
R2600
220(D)
R2601
470(D)
C2602
100nF(Z)
C2600
470pF(J)
C2601
270pF(J)
22K(J)
R2603
C2614
100nF(Z)
C2603
0.001uF(J)
COMP
[L311B]
IC261
OUT
BALANCE
S/B
VCC+
VCC-
GND
470(J)
R2608
C2617
100nF(Z)
37HLX95
SEINE FOR FPD
LPF, Slicer
SH. NO.
260





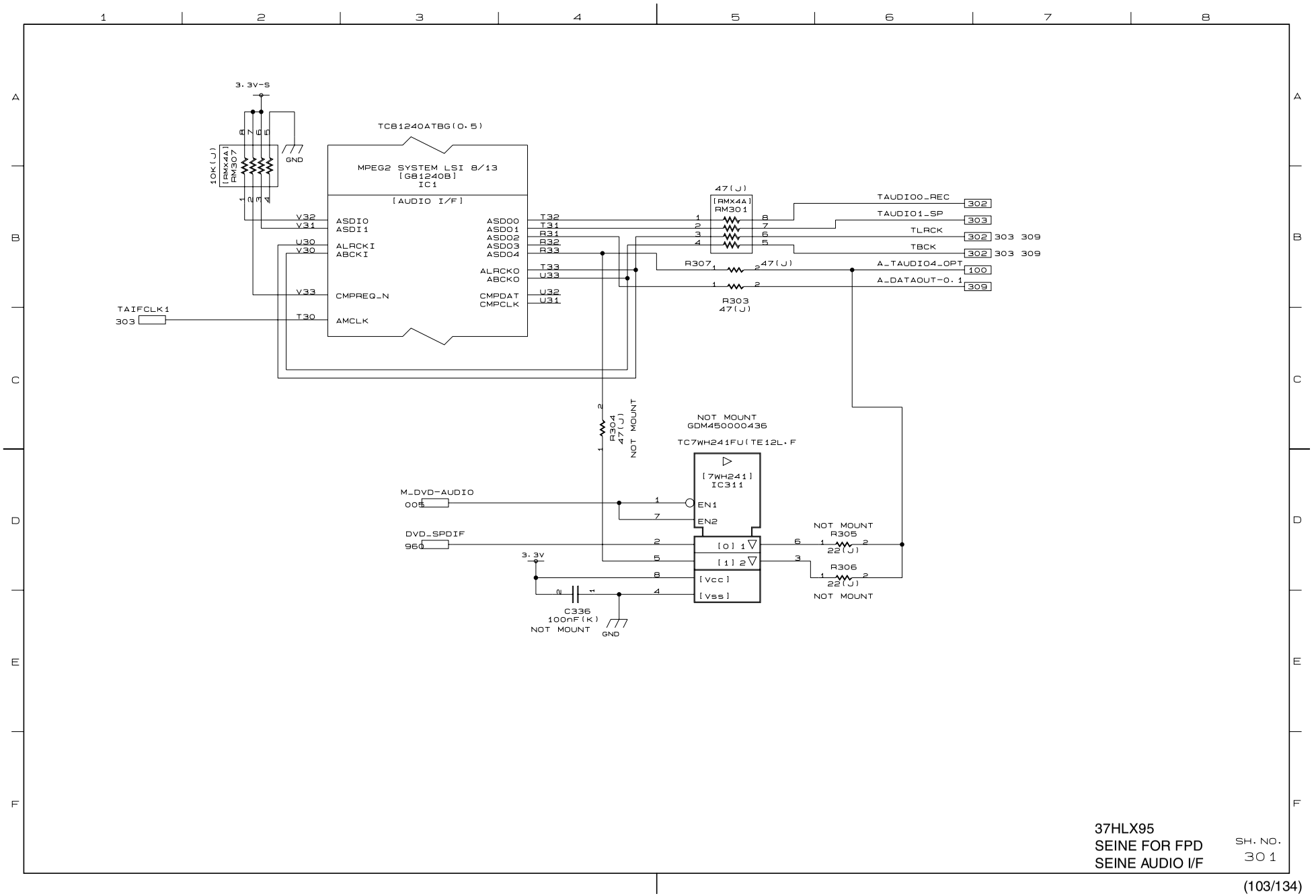
37HLX95
SEINE FOR FPD
H/V Sync Sep.

SH. NO.
261



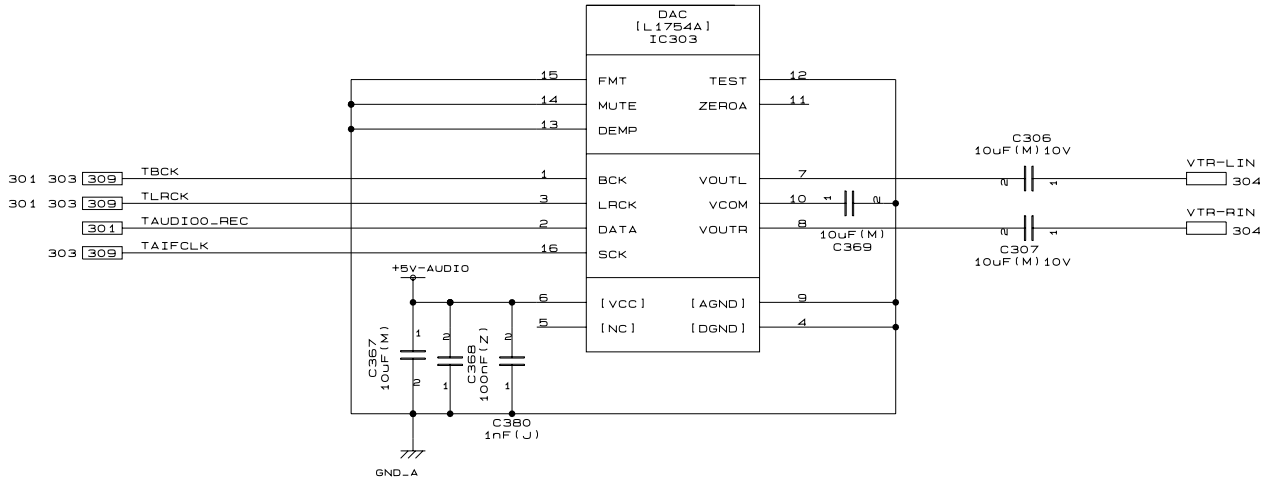
37HLX95
SEINE FOR FPD
AUDIO POWER

SH. NO.
300



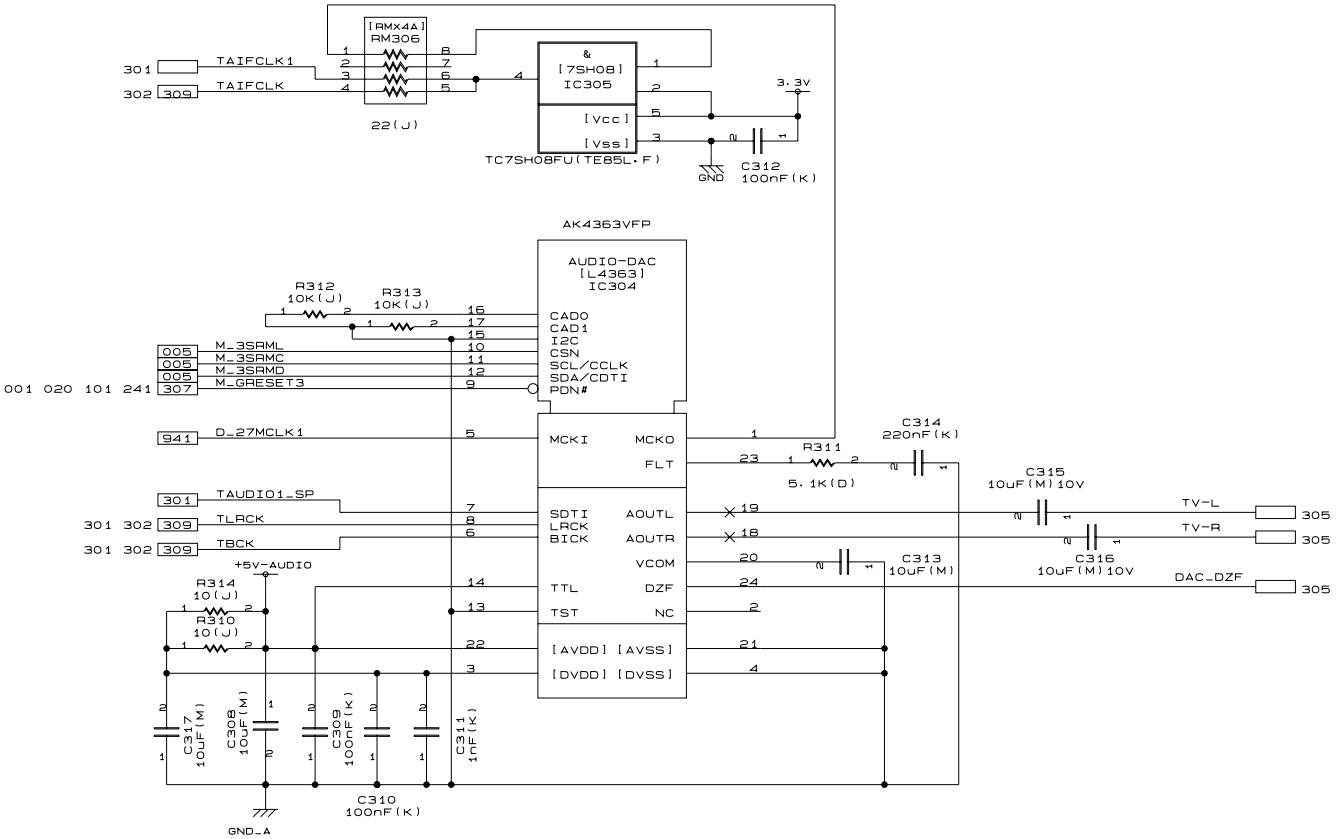
37HLX95
SEINE FOR FPD
SEINE AUDIO I/F

SH. NO.
301



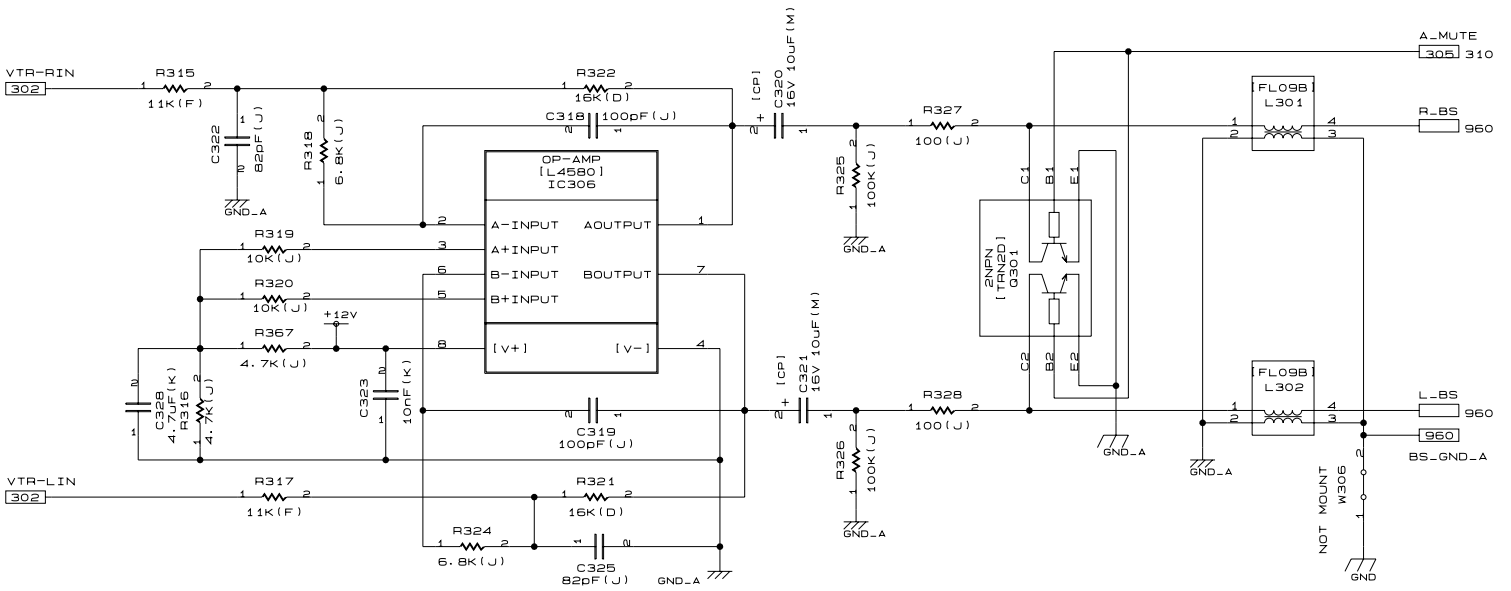
37HLX95
SEINE FOR FPD
AUDIO DAC

SH. NO.
302



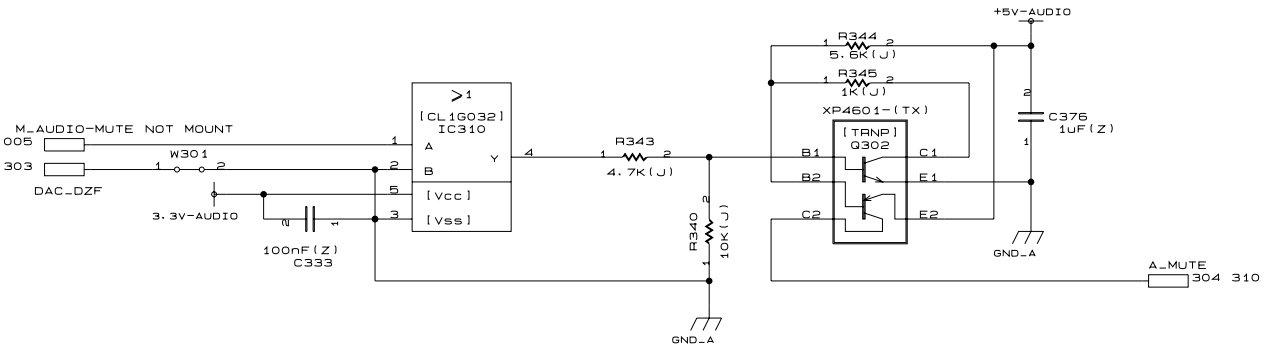
37HLX95
SEINE FOR FPD
AUDIO PLL/DAC

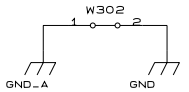
SH. NO.
303

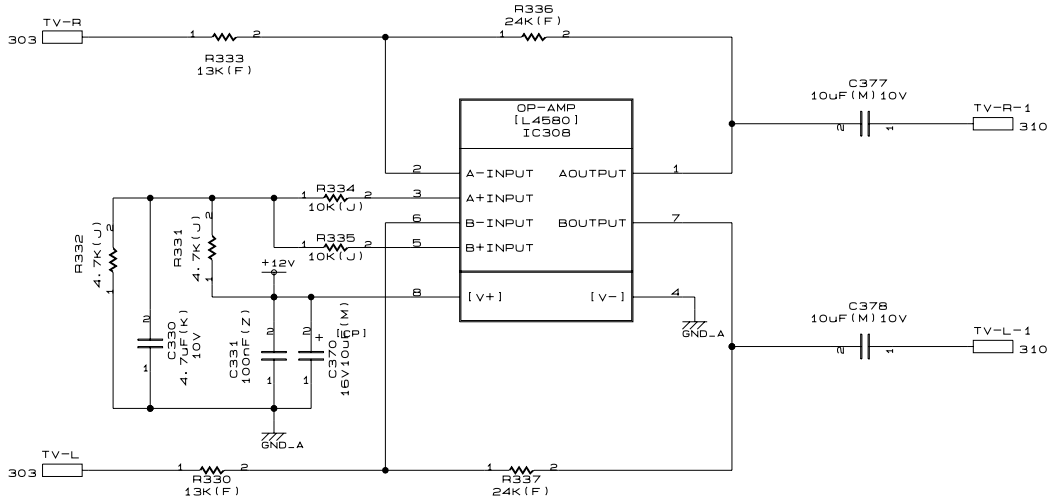


37HLX95
SEINE FOR FPD
AUDIO VTR OUT

SH. NO.
304

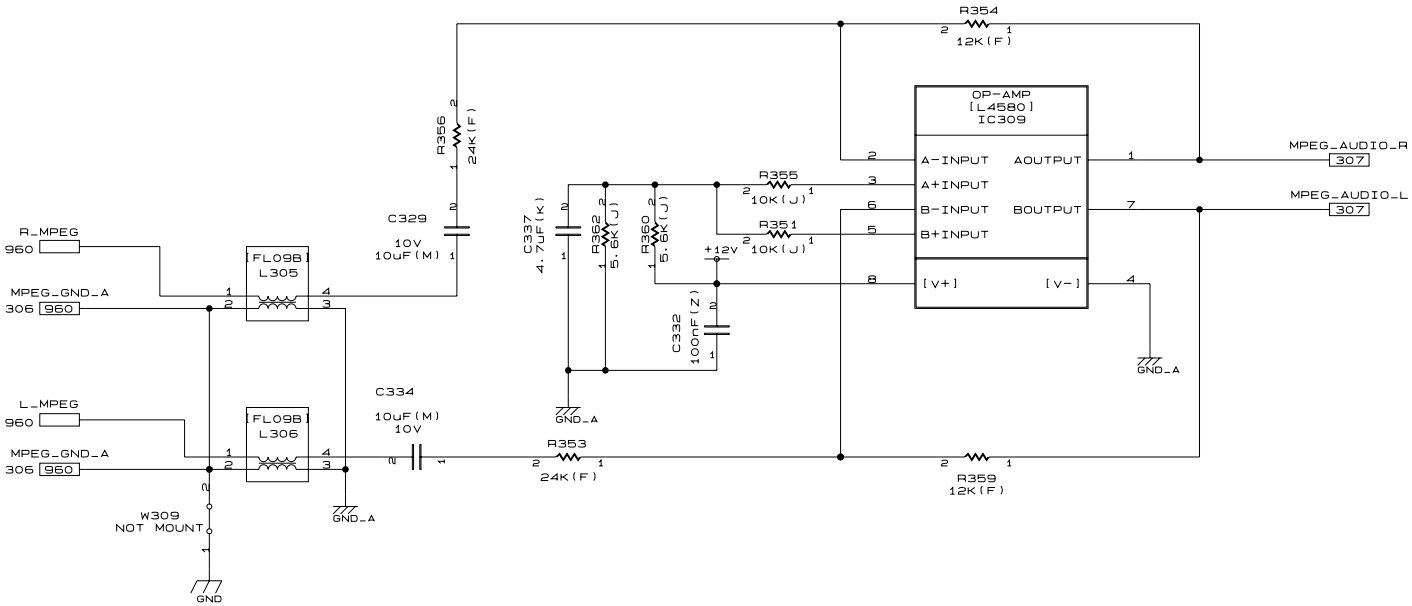






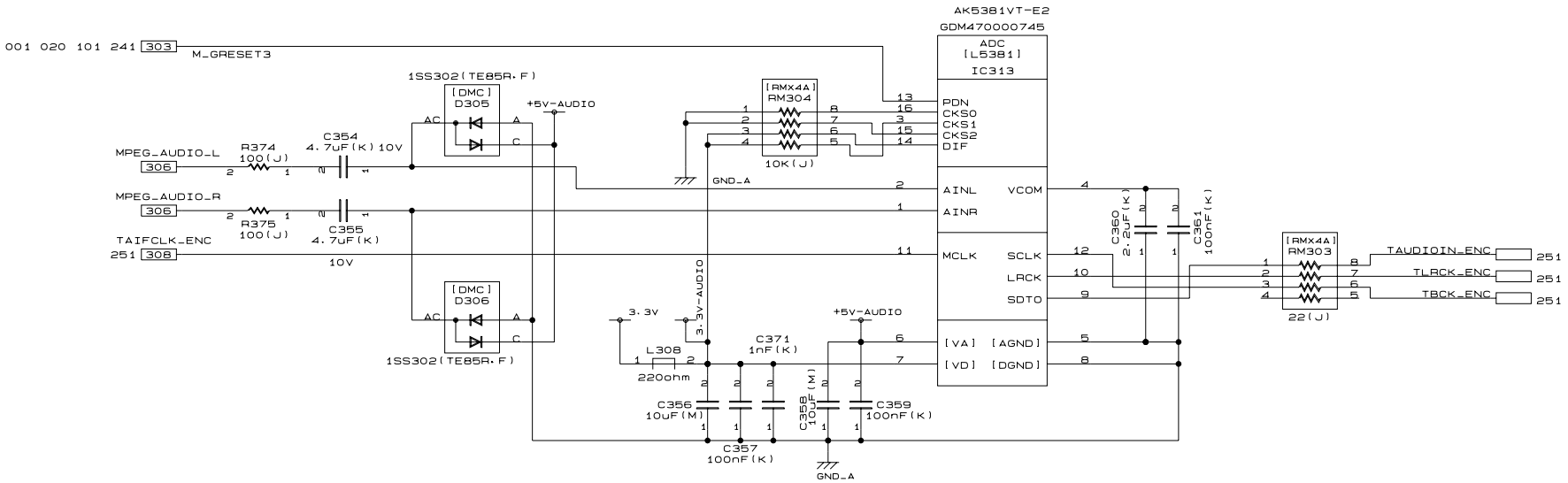
37HLX95
SEINE FOR FPD
AUDIO SP OUT

SH. NO.
305



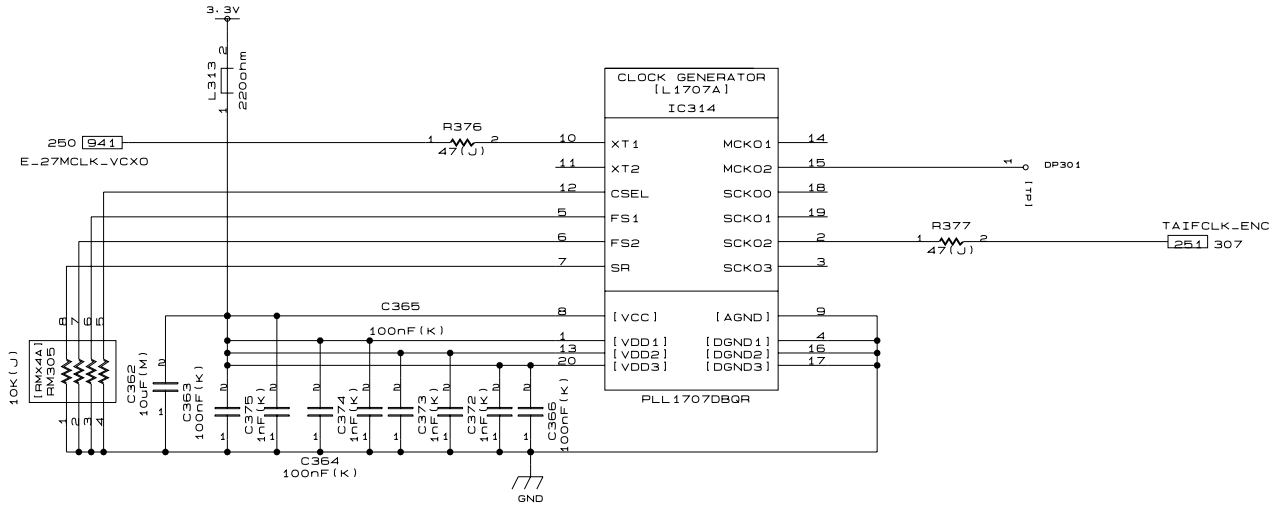
37HLX95
SEINE FOR FPD
MPEG2 AUDIO TV IN

SH. NO.
306



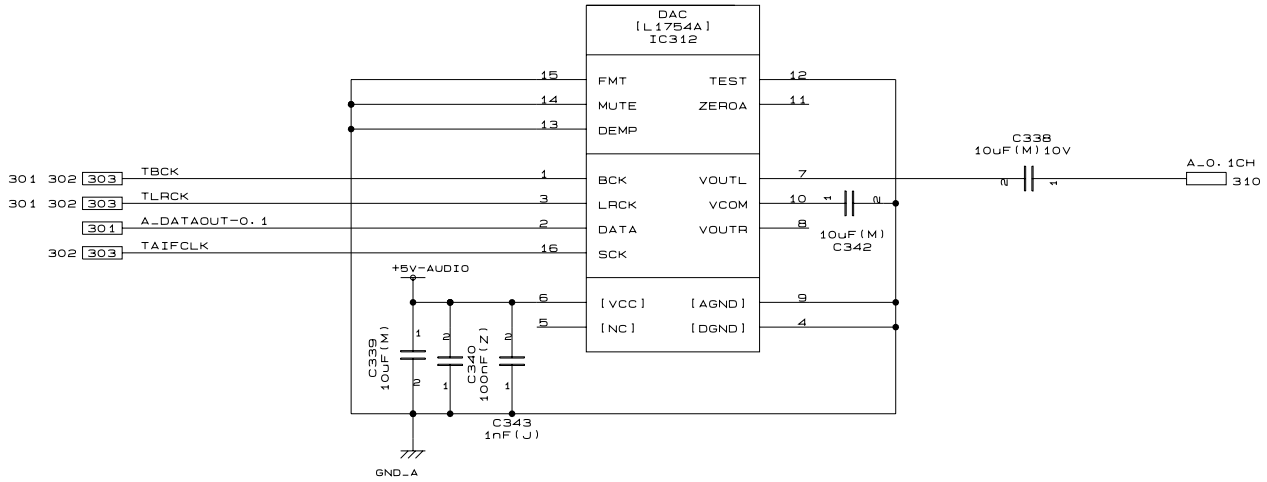
37HLX95
SEINE FOR FPD
MPEG2 AUDIO ADC

SH. NO.
307



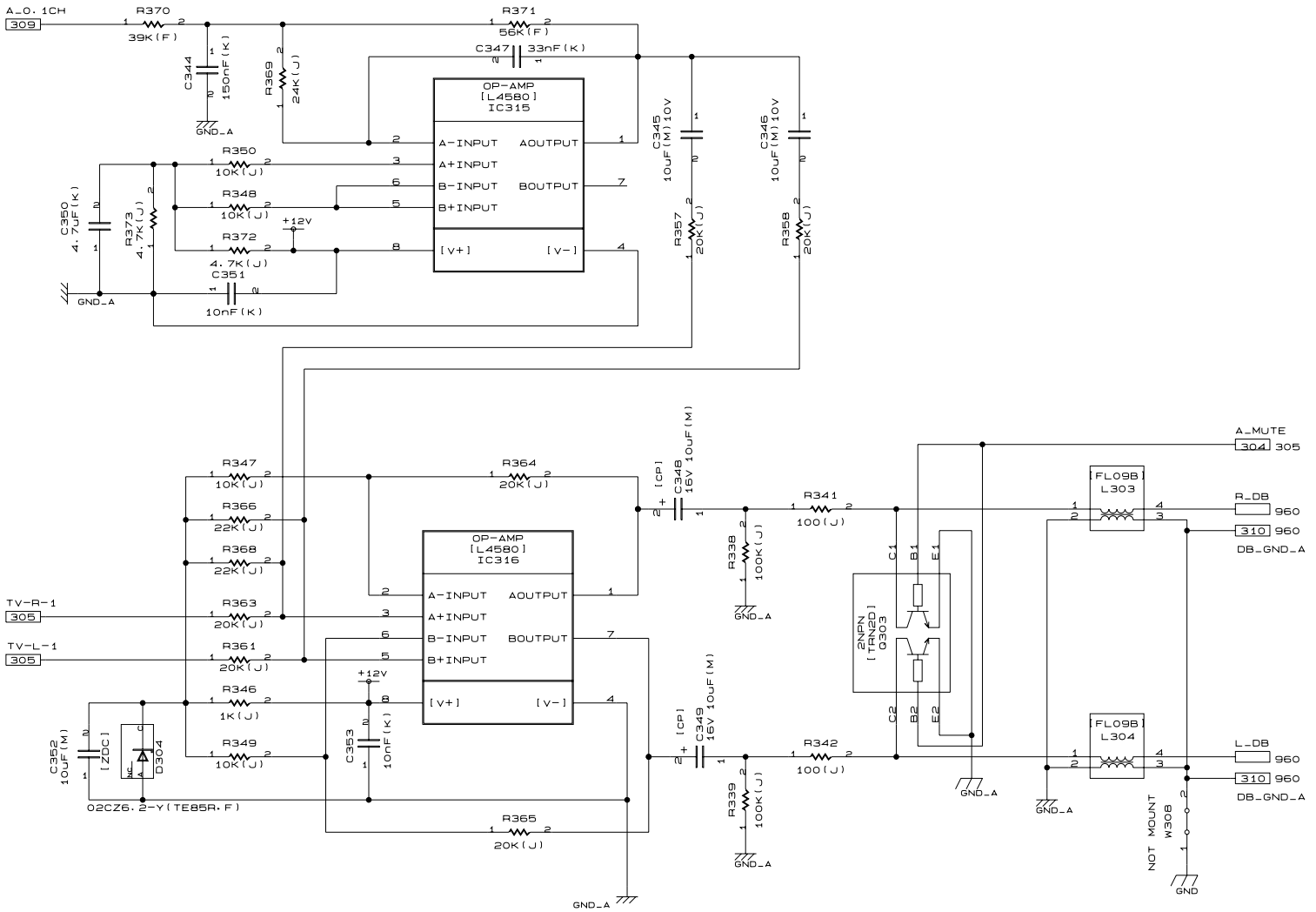
37HLX95
SEINE FOR FPD
MPEG2 AUDIO PLL

SH. NO.
308



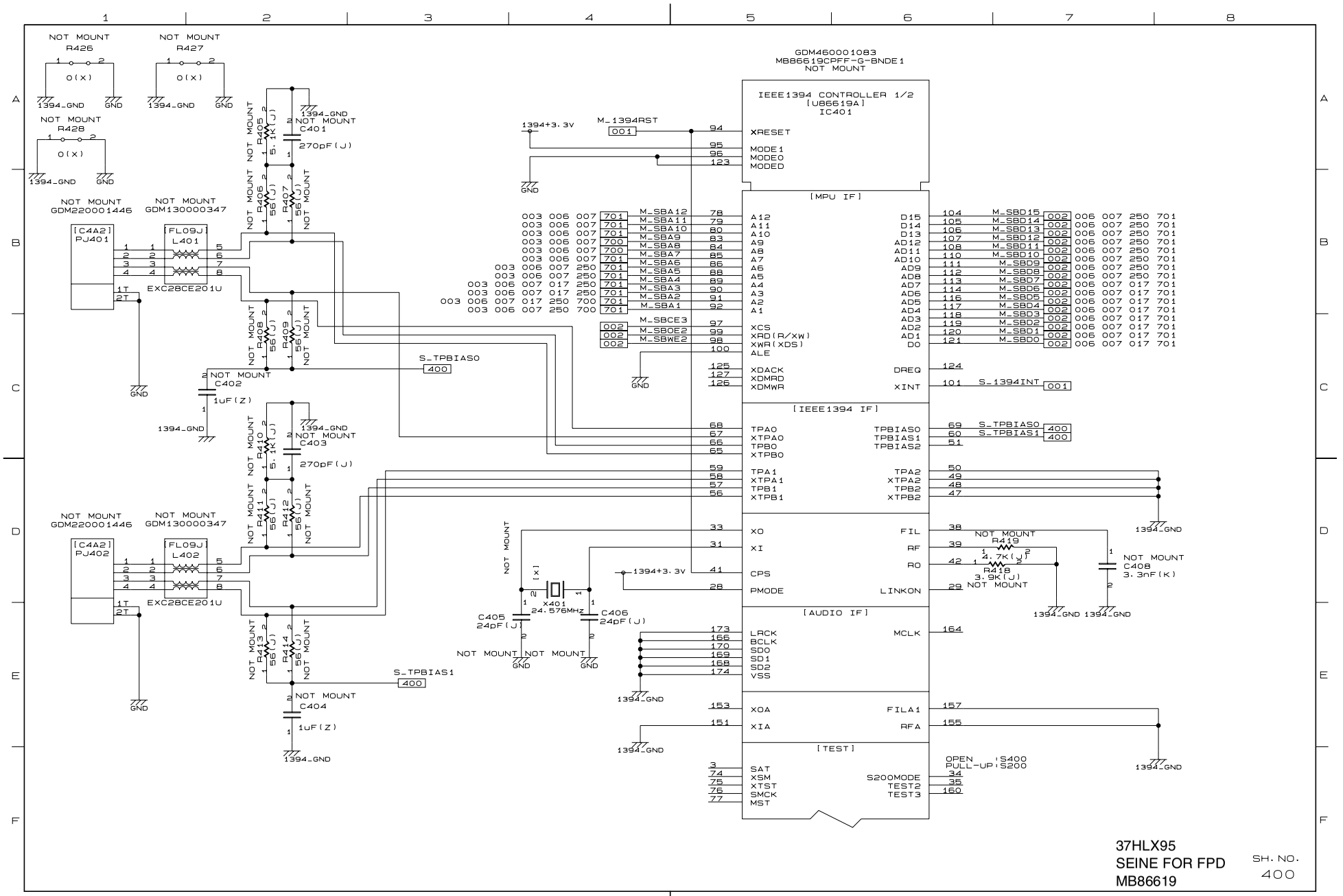
37HLX95
SEINE FOR FPD
AUDIO DAC 0.1CH

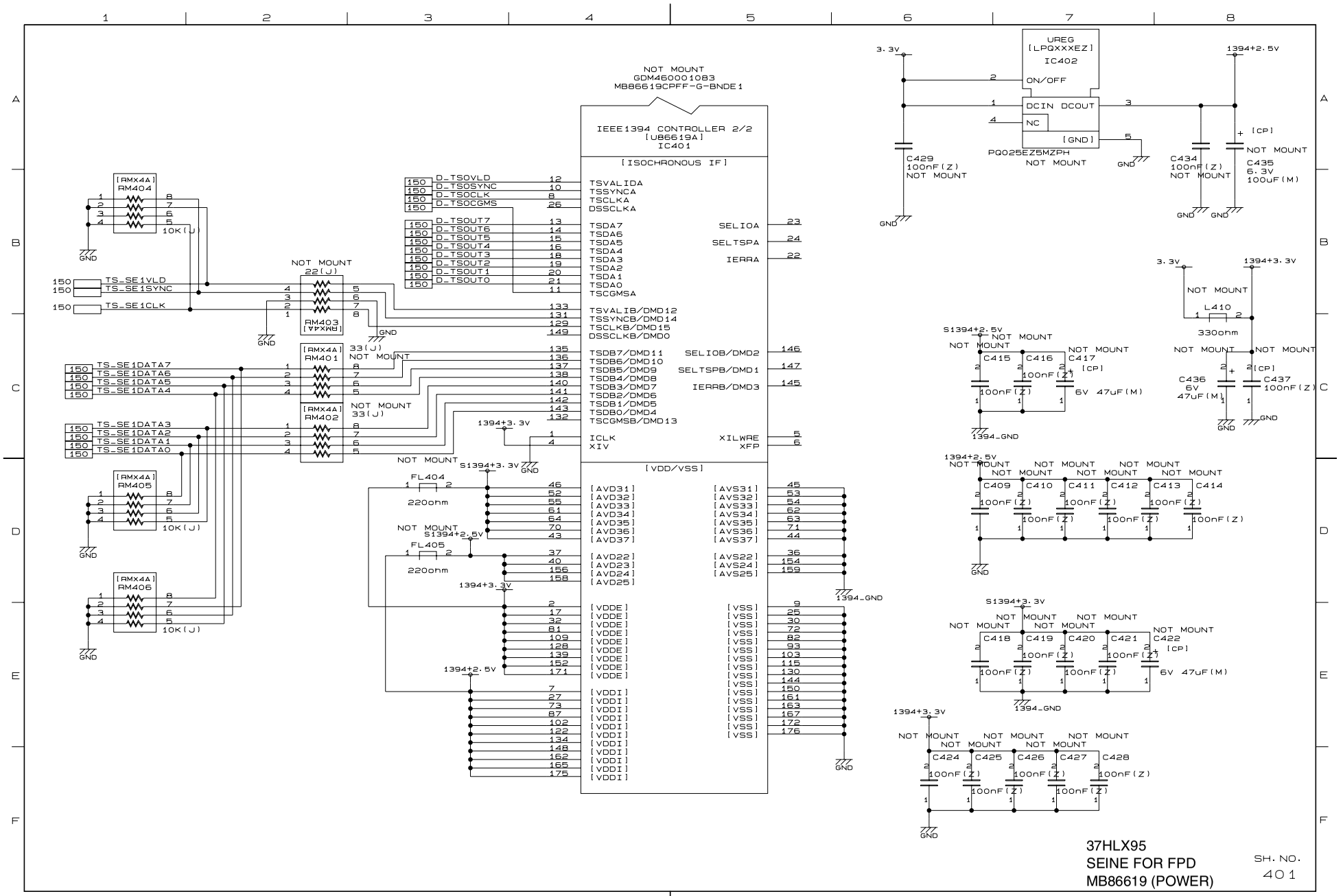
SH. NO.
309

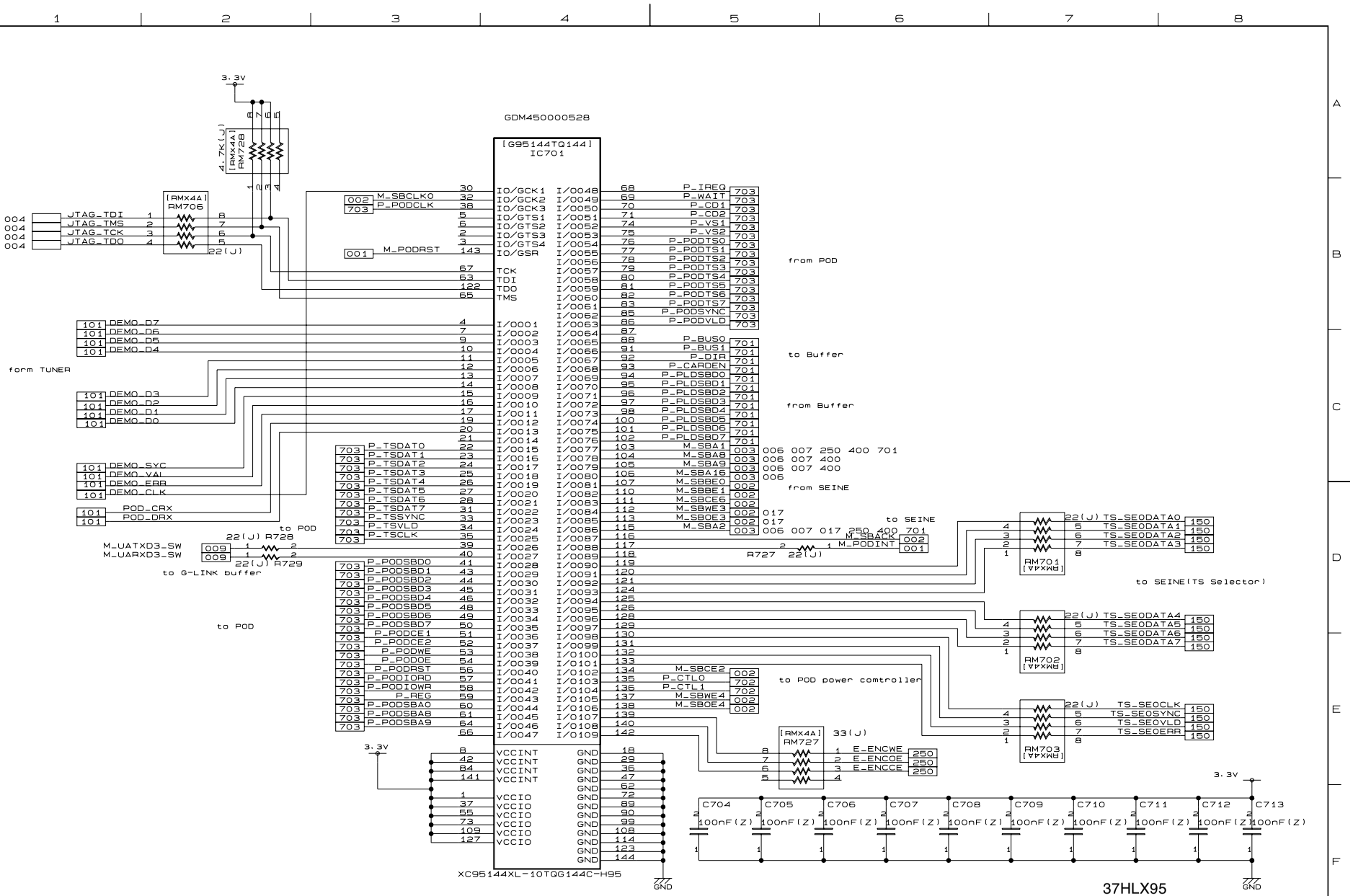


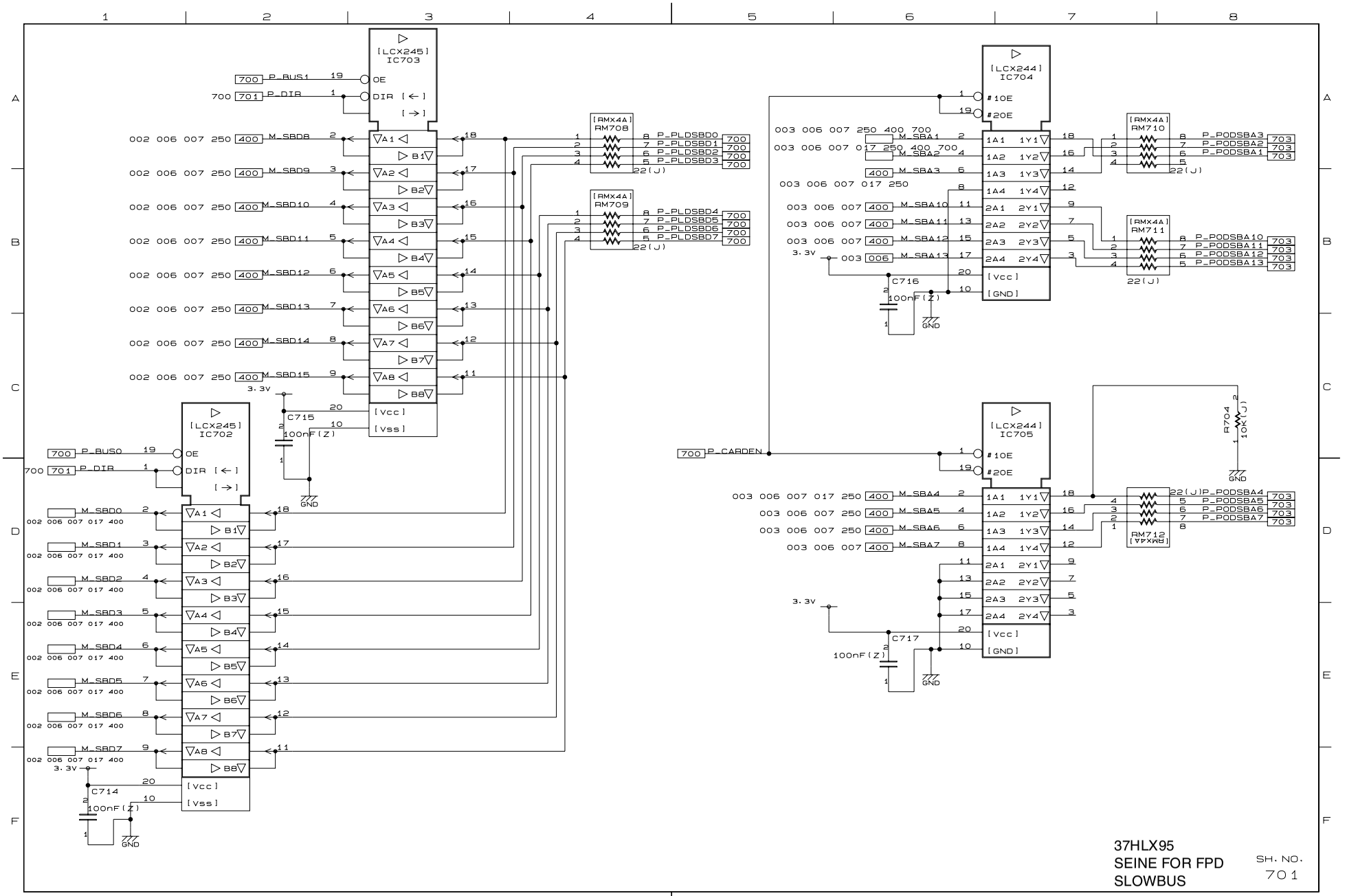
37HLX95
SEINE FOR FPD
AUDIO VTR OUT

SH. NO.
310


GDM460001083
MB86619CPFF-G-BNDE1
NOT MOUNT
IEEE1394 CONTROLLER 1/2
[UB6619A]
IC401
[MPU IF]
[IEEE1394 IF]
[AUDIO IF]
[TEST]
XRESET
MODE1
MODE0
MODED
XCS
XRD(R/XW)
XWR(XDS)
ALE
XDACK
XDMRD
XDMWR
DREQ
XINT
S_1394INT
TPA0
XTPA0
TPB0
XTPB0
TPA1
XTPA1
TPB1
XTPB1
TPA2
XTPA2
TPB2
XTPB2
TPBIAS0
TPBIAS1
TPBIAS2
XO
XI
CPS
PMODE
FIL
RF
RO
LINKON
LRCK
BCLK
SDO
SD1
SD2
VSS
MCLK
XOA
XIA
FILA1
RFA
SAT
XSM
XTST
SMCK
MST
S200MODE
TEST2
TEST3
M_1394RST
1394+3.3V
M_SBA12
M_SBA11
M_SBA10
M_SBA9
M_SBA8
M_SBA7
M_SBA6
M_SBA5
M_SBA4
M_SBA3
M_SBA2
M_SBA1
M_SBCE3
M_SBOE2
M_SBWE2
M_SBD15
M_SBD14
M_SBD13
M_SBD12
M_SBD11
M_SBD10
M_SBD9
M_SBD8
M_SBD7
M_SBD6
M_SBD5
M_SBD4
M_SBD3
M_SBD2
M_SBD1
M_SBD0
S_TPBIAS0
S_TPBIAS1
OPEN :S400
PULL-UP:S200
[C4A2]
PJ401
PJ402
[FL09J]
L401
L402
EXC28CE201U
X401
24.576MHz
C405
24pF(J)
C406
24pF(J)
C401
270pF(J)
C402
1uF(Z)
C403
270pF(J)
C404
1uF(Z)
C408
3.3nF(K)
R405
5.1K(J)
R406
56(J)
R407
56(J)
R408
56(J)
R409
56(J)
R410
5.1K(J)
R411
56(J)
R412
56(J)
R413
56(J)
R414
56(J)
R418
3.9K(J)
R419
4.7K(J)
NOT MOUNT R426
NOT MOUNT R427
NOT MOUNT R428
NOT MOUNT GDM2200001446
NOT MOUNT GDM130000347
NOT MOUNT GDM2200001446
NOT MOUNT GDM130000347
1394_GND
GND
37HLX95
SEINE FOR FPD
MB86619
SH. NO.
400

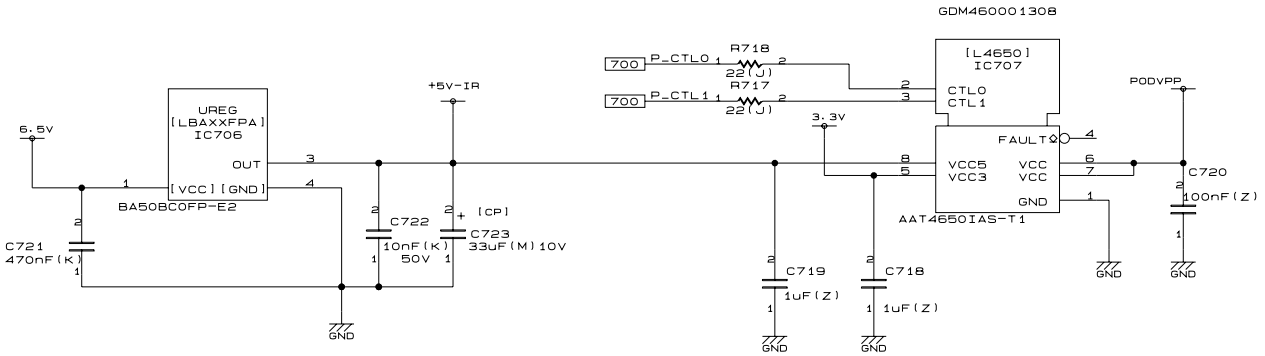

NOT MOUNT
GDM460001083
MB86619CPFF-G-BNDE1
IEEE1394 CONTROLLER 2/2
[U86619A]
IC401
[ISOCHRONOUS IF]
[VDD/VSS]
UREG
[LPQXXXEZ]
IC402
PQ025EZ5MZPH
NOT MOUNT
3.3V
1394+2.5V
1394+3.3V
1394_GND
GND
D_TSOVLD
D_TSOSYNC
D_TSOCLK
D_TSOCGMS
D_TSOUT7
D_TSOUT6
D_TSOUT5
D_TSOUT4
D_TSOUT3
D_TSOUT2
D_TSOUT1
D_TSOUT0
TS_SE1VLD
TS_SE1SYNC
TS_SE1CLK
TS_SE1DATA7
TS_SE1DATA6
TS_SE1DATA5
TS_SE1DATA4
TS_SE1DATA3
TS_SE1DATA2
TS_SE1DATA1
TS_SE1DATA0
RM404
RM403
RM401
RM402
RM405
RM406
10K(J)
22(J)
33(J)
FL404
FL405
2200ohm
L410
330ohm
C429
C434
C435
C409
C410
C411
C412
C413
C414
C415
C416
C417
C418
C419
C420
C421
C422
C424
C425
C426
C427
C428
C436
C437
100nF(Z)
6V 47uF(M)
37HLX95
SEINE FOR FPD
MB86619 (POWER)
SH. NO.
401


GDM450000528
[G95144TQ144]
IC701
XC95144XL-10TQG144C-H95
3.3V
GND
from POD
to Buffer
from Buffer
from SEINE
to SEINE
to SEINE(TS Selector)
to POD power comtroller
form TUNER
to POD
to G-LINK buffer
JTAG_TDI
JTAG_TMS
JTAG_TCK
JTAG_TDO
M_SBCLKO
P_PODCLK
M_PODRST
DEMO_D7
DEMO_D6
DEMO_D5
DEMO_D4
DEMO_D3
DEMO_D2
DEMO_D1
DEMO_D0
DEMO_SYC
DEMO_VAI
DEMO_EBR
DEMO_CLK
POD_CRX
POD_DRX
M_UATXD3_SW
M_UARXD3_SW
P_TSDAT0
P_TSDAT1
P_TSDAT2
P_TSDAT3
P_TSDAT4
P_TSDAT5
P_TSDAT6
P_TSDAT7
P_TSSYNC
P_TSVLD
P_TSCLK
P_PODSBD0
P_PODSBD1
P_PODSBD2
P_PODSBD3
P_PODSBD4
P_PODSBD5
P_PODSBD6
P_PODSBD7
P_PODCE1
P_PODCE2
P_PODWE
P_PODOE
P_PODRST
P_PODIORD
P_PODIOWR
P_REG
P_PODSBA0
P_PODSBA8
P_PODSBA9
P_IREQ
P_WAIT
P_CD1
P_CD2
P_VS1
P_VS2
P_PODTSO
P_PODTS1
P_PODTS2
P_PODTS3
P_PODTS4
P_PODTS5
P_PODTS6
P_PODTS7
P_PODSYNC
P_PODVLD
P_BUS0
P_BUS1
P_DIR
P_CARDEN
P_PLDSBD0
P_PLDSBD1
P_PLDSBD2
P_PLDSBD3
P_PLDSBD4
P_PLDSBD5
P_PLDSBD6
P_PLDSBD7
M_SBA1
M_SBA8
M_SBA9
M_SBA16
M_SBBE0
M_SBBE1
M_SBCE6
M_SBWE3
M_SBOE3
M_SBA2
M_SBCE2
P_CTL0
P_CTL1
M_SBWE4
M_SBOE4
M_SBACK
M_PODINT
E_ENCWE
E_ENCOE
E_ENCCE
TS_SEODATA0
TS_SEODATA1
TS_SEODATA2
TS_SEODATA3
TS_SEODATA4
TS_SEODATA5
TS_SEODATA6
TS_SEODATA7
TS_SEOCLK
TS_SEOSYNC
TS_SEOVLD
TS_SEOERR
C704
C705
C706
C707
C708
C709
C710
C711
C712
C713
100nF(Z)
37HLX95
SEINE FOR FPD
CPLD XILINX
SH. NO.
700



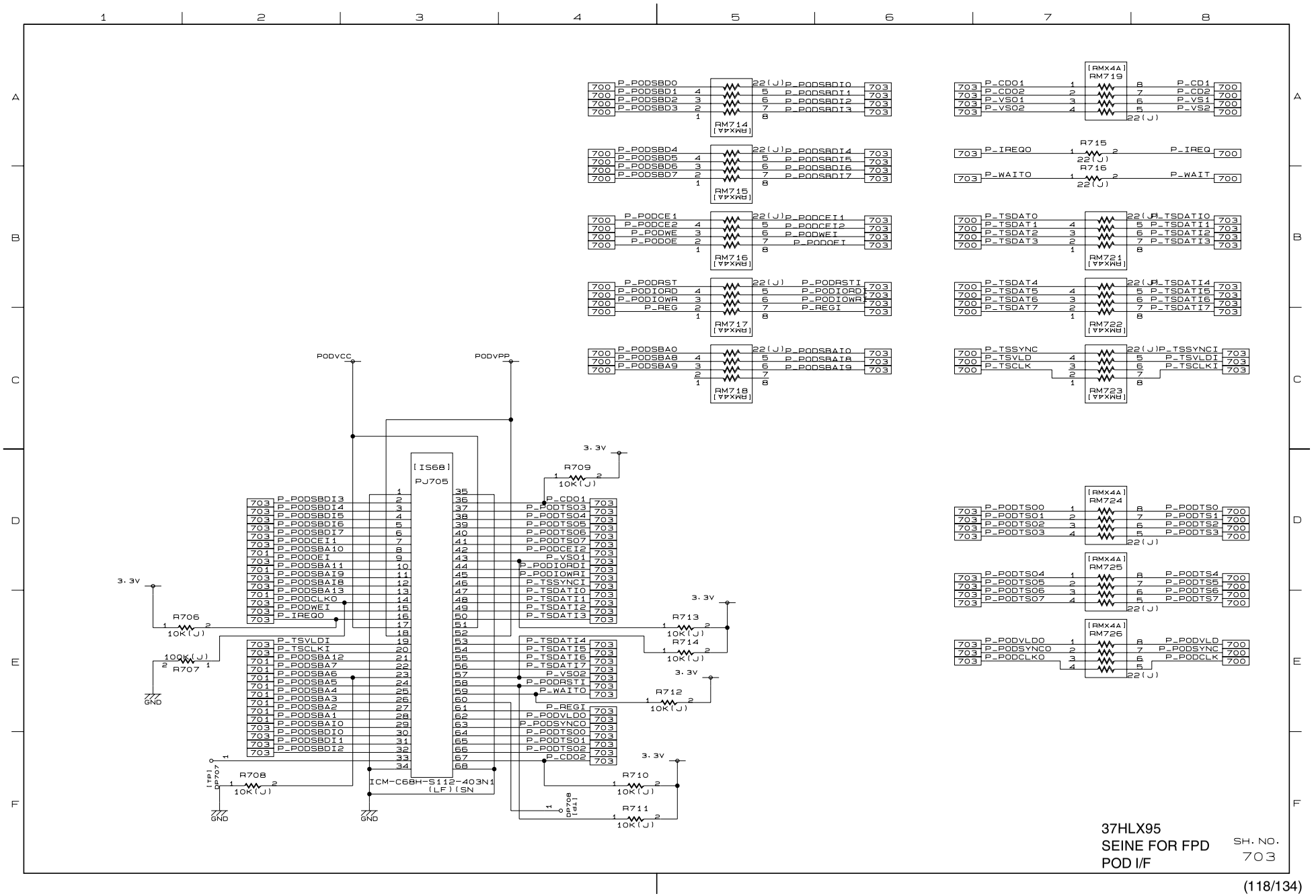
37HLX95
SEINE FOR FPD
SLOWBUS

SH. NO.
701



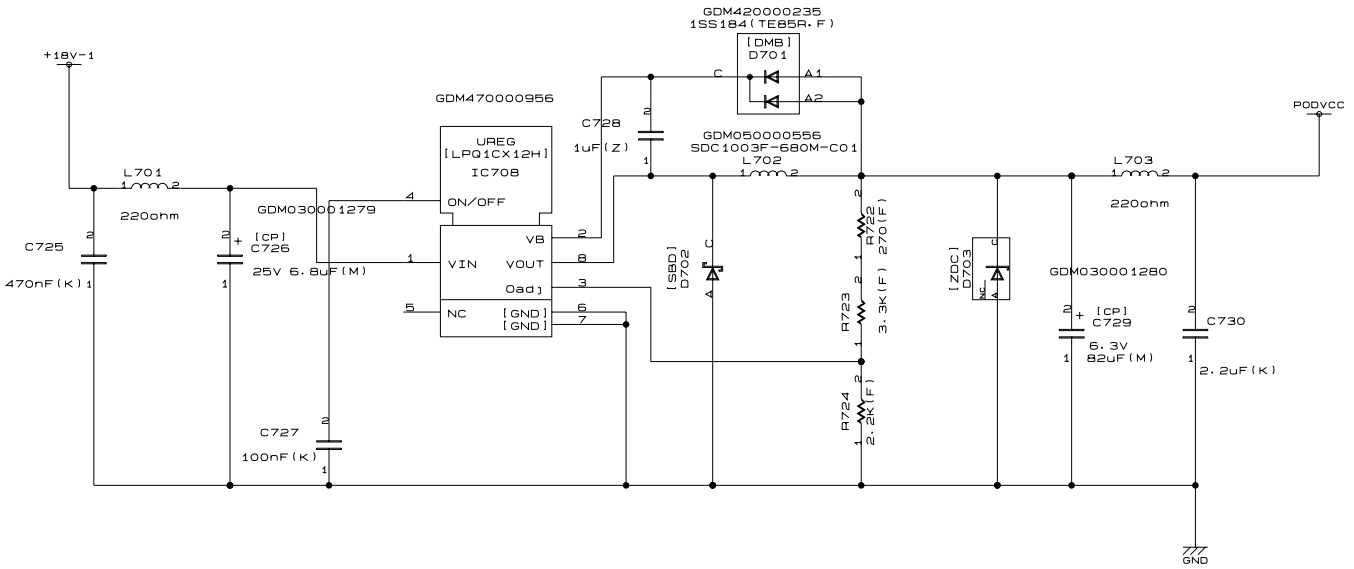
37HLX95
SEINE FOR FPD
PODVPP

SH. NO.
702



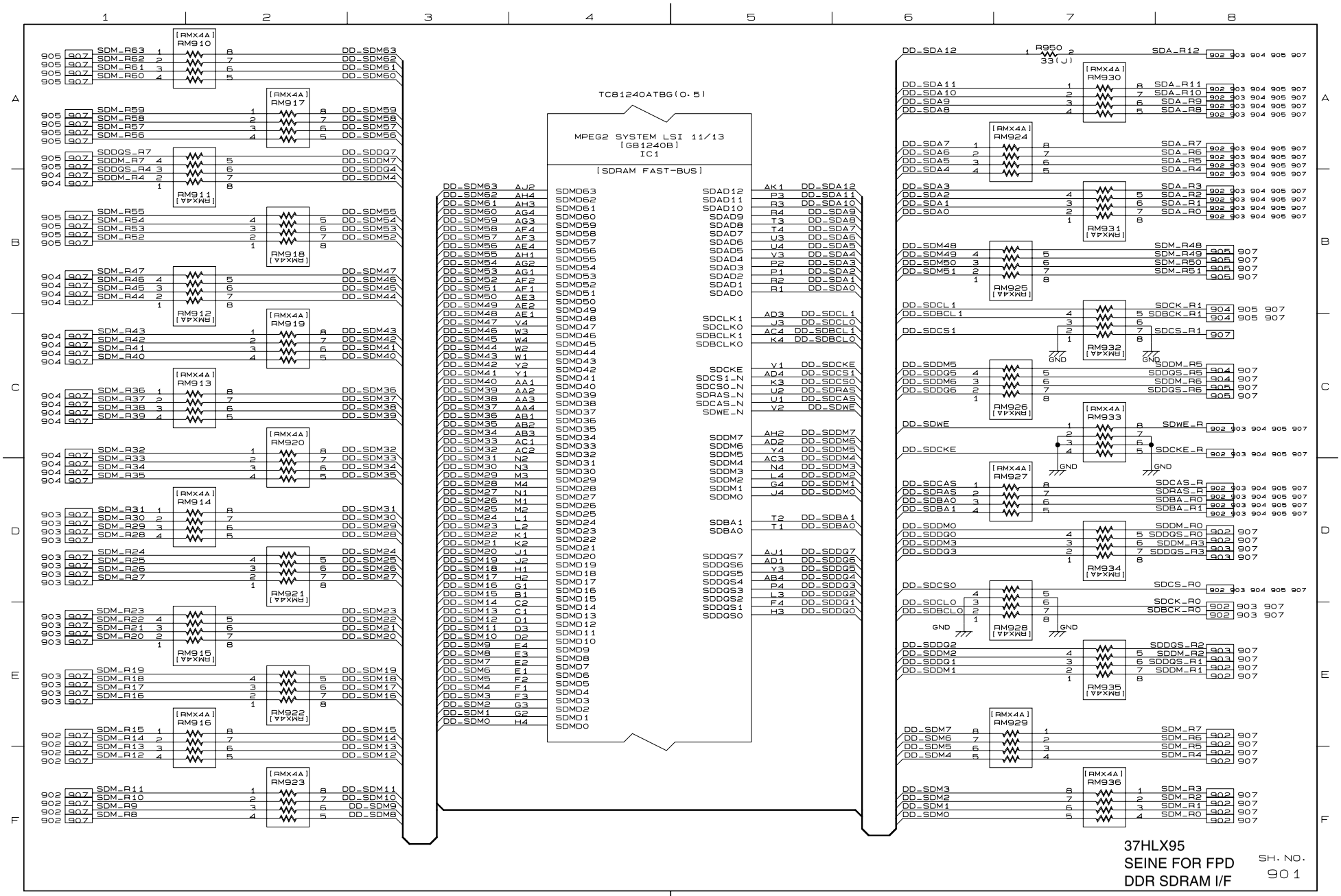
37HLX95
SEINE FOR FPD
POD I/F

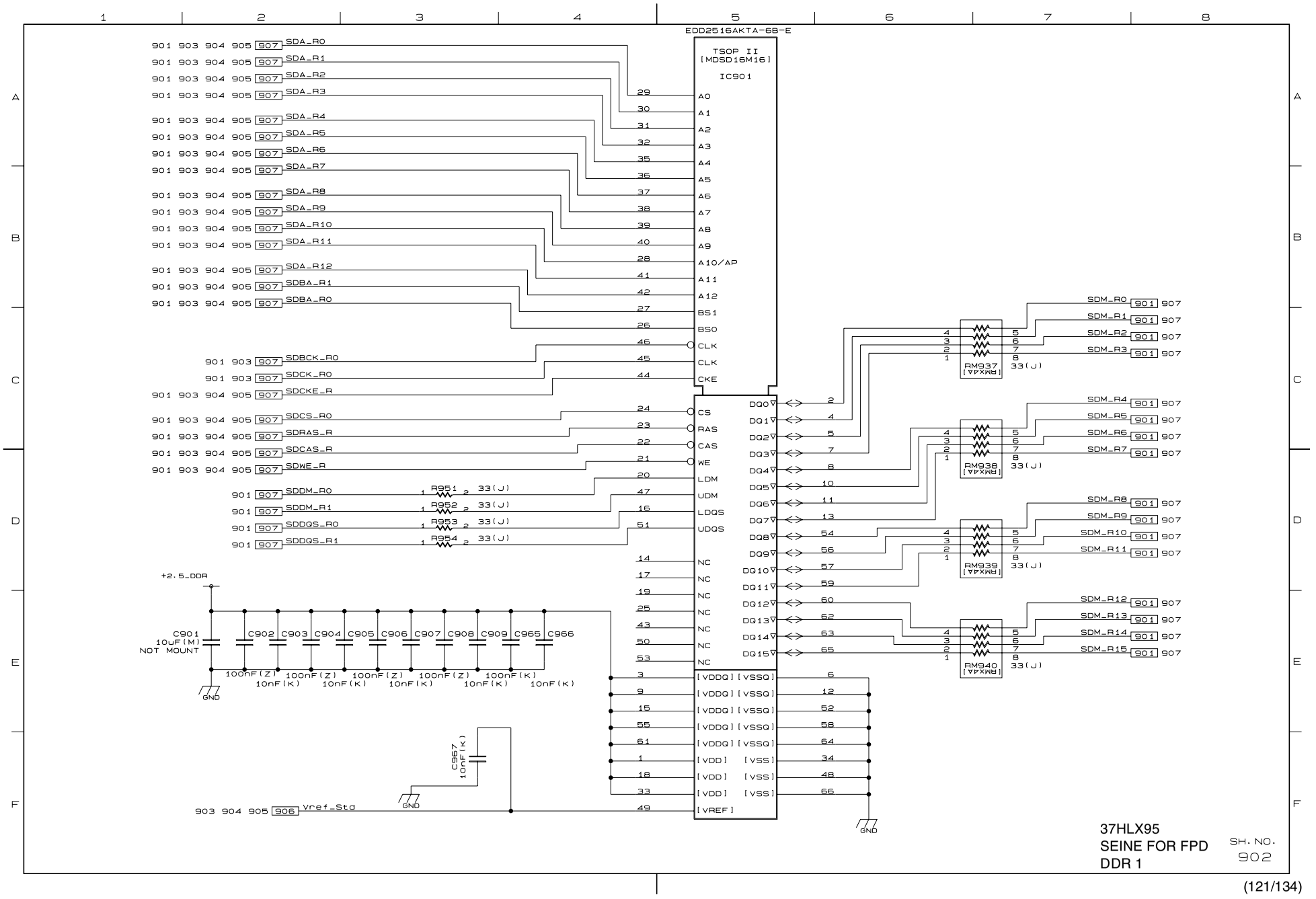
SH. NO.
703



37HLX95
SEINE FOR FPD
PODVCC

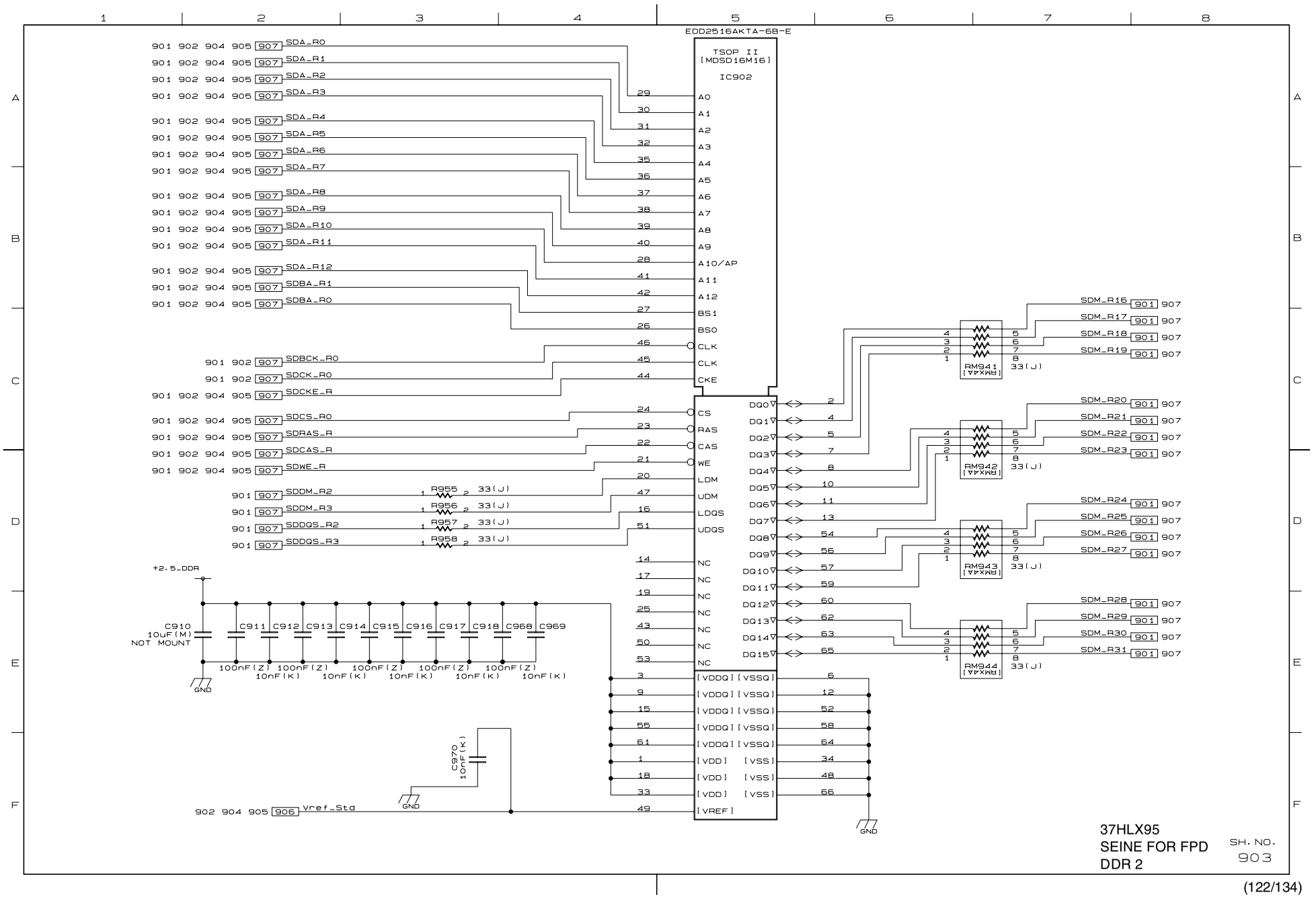
SH. NO.
704


TC81240ATBG(0.5)
MPEG2 SYSTEM LSI 11/13
[G81240B]
IC1
[SDRAM FAST-BUS]
37HLX95
SEINE FOR FPD
DDR SDRAM I/F
SH. NO.
901



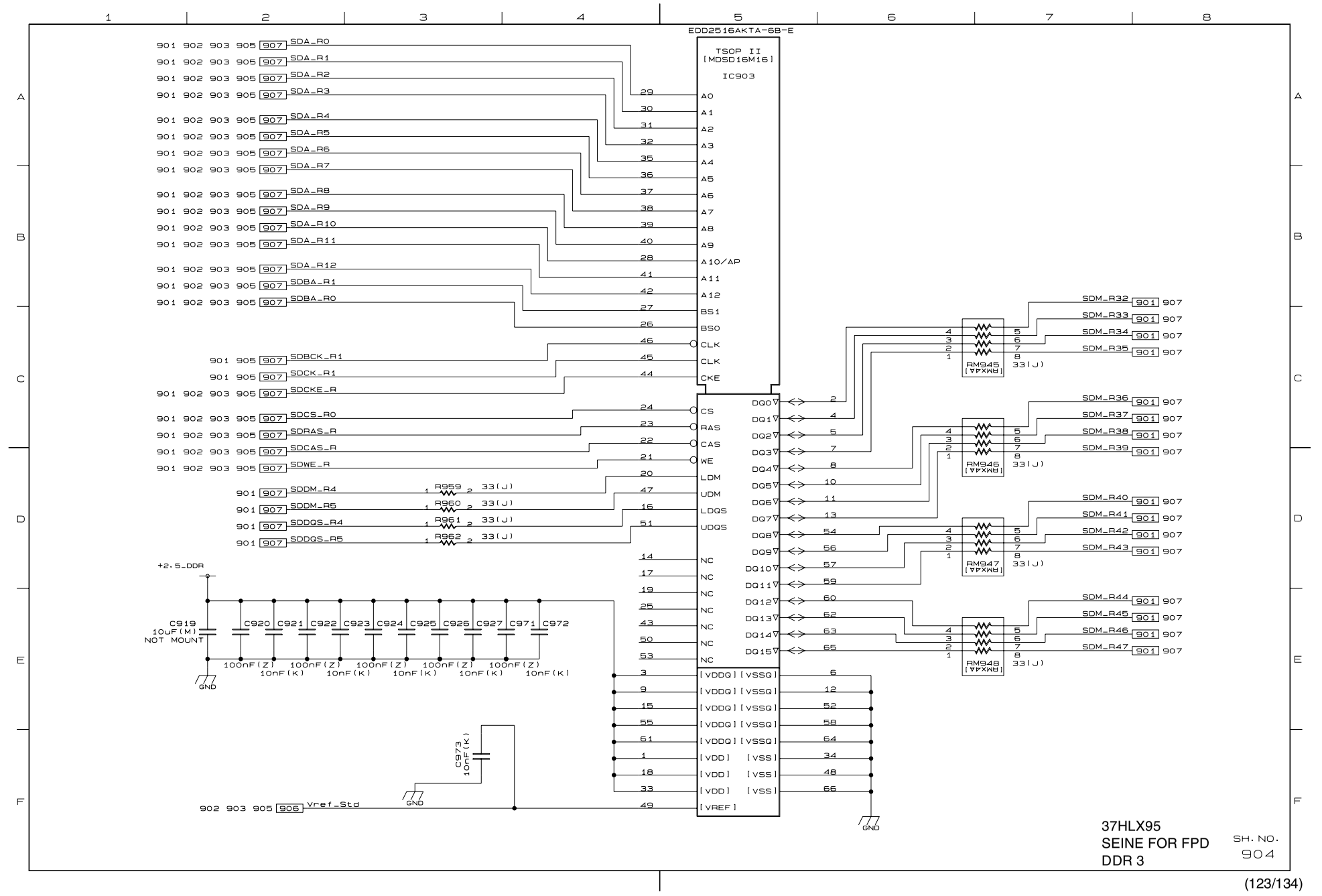
37HLX95
SEINE FOR FPD
DDR 1

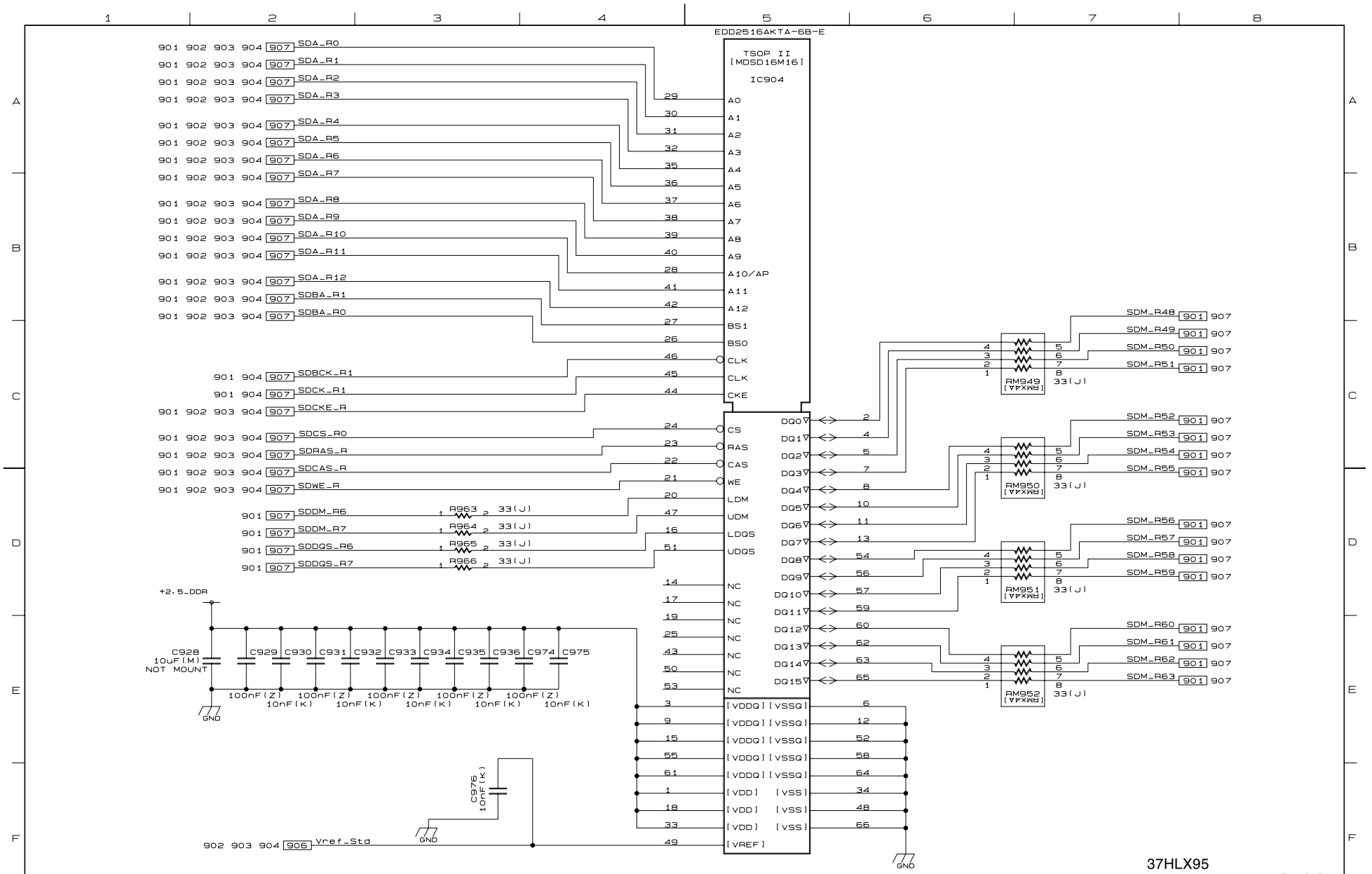
SH. NO.
902



37HLX95
SEINE FOR FPD
DDR 2

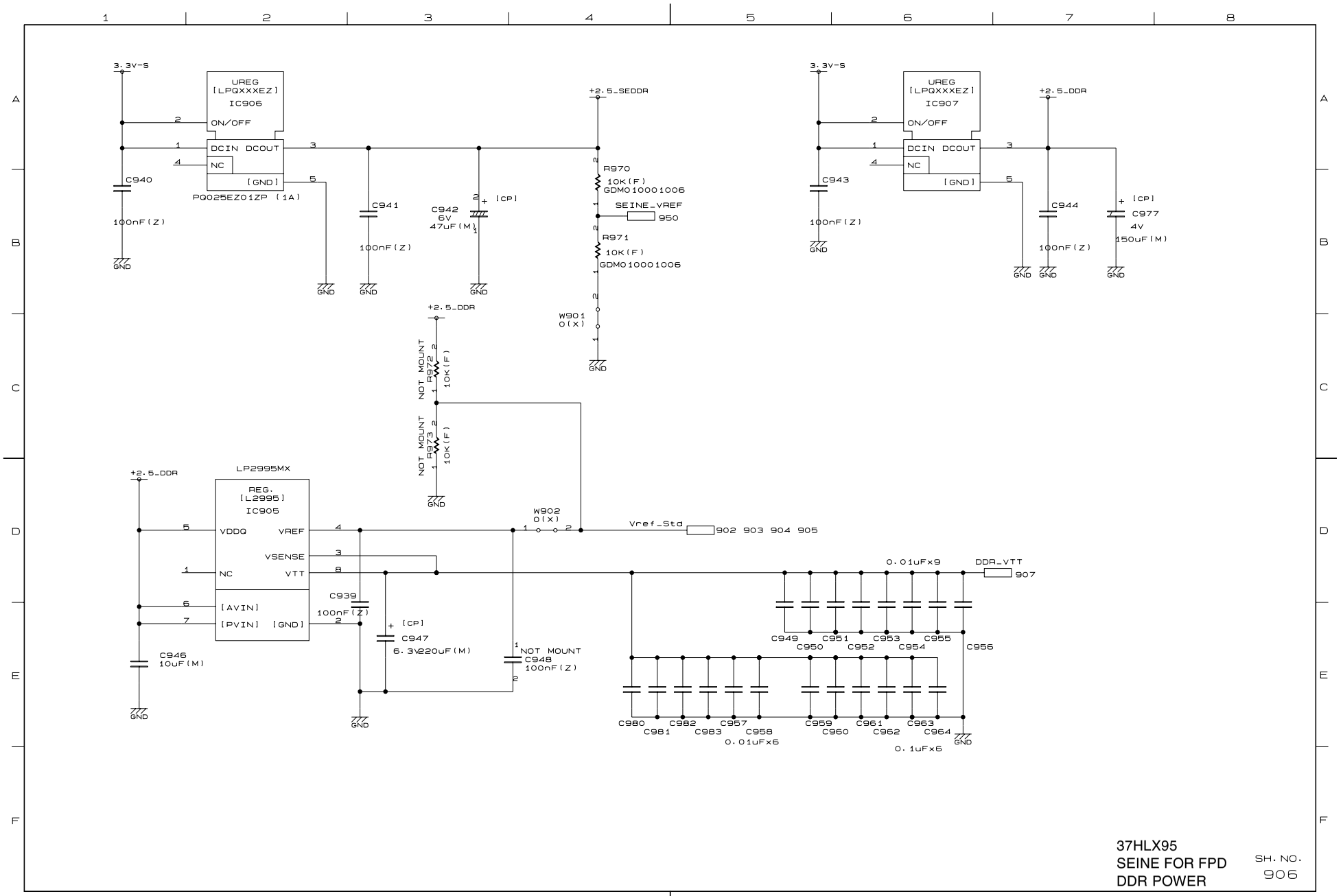
SH. NO.
903


EDD2516AKTA-6B-E
TSOP II
[MDSD16M16]
IC903
SDA_R0
SDA_R1
SDA_R2
SDA_R3
SDA_R4
SDA_R5
SDA_R6
SDA_R7
SDA_R8
SDA_R9
SDA_R10
SDA_R11
SDA_R12
SDBA_R1
SDBA_R0
SDBCK_R1
SDCK_R1
SDCKE_R
SDCS_R0
SDRAS_R
SDCAS_R
SDWE_R
SDDM_R4
SDDM_R5
SDDQS_R4
SDDQS_R5
R959 33(J)
R960 33(J)
R961 33(J)
R962 33(J)
A0
A1
A2
A3
A4
A5
A6
A7
A8
A9
A10/AP
A11
A12
BS1
BS0
CLK
CLK
CKE
CS
RAS
CAS
WE
LDM
UDM
LDQS
UDQS
NC
[VDDQ] [VSSQ]
[VDD] [VSS]
[VREF]
DQ0
DQ1
DQ2
DQ3
DQ4
DQ5
DQ6
DQ7
DQ8
DQ9
DQ10
DQ11
DQ12
DQ13
DQ14
DQ15
RM945 33(J)
RM946 33(J)
RM947 33(J)
RM948 33(J)
SDM_R32
SDM_R33
SDM_R34
SDM_R35
SDM_R36
SDM_R37
SDM_R38
SDM_R39
SDM_R40
SDM_R41
SDM_R42
SDM_R43
SDM_R44
SDM_R45
SDM_R46
SDM_R47
+2.5_DDR
C919 10uF(M) NOT MOUNT
C920 C921 C922 C923 C924 C925 C926 C927 C971 C972
100nF(Z) 10nF(K)
C973 10nF(K)
Vref-Std
GND
37HLX95
SEINE FOR FPD
DDR 3
SH. NO.
904



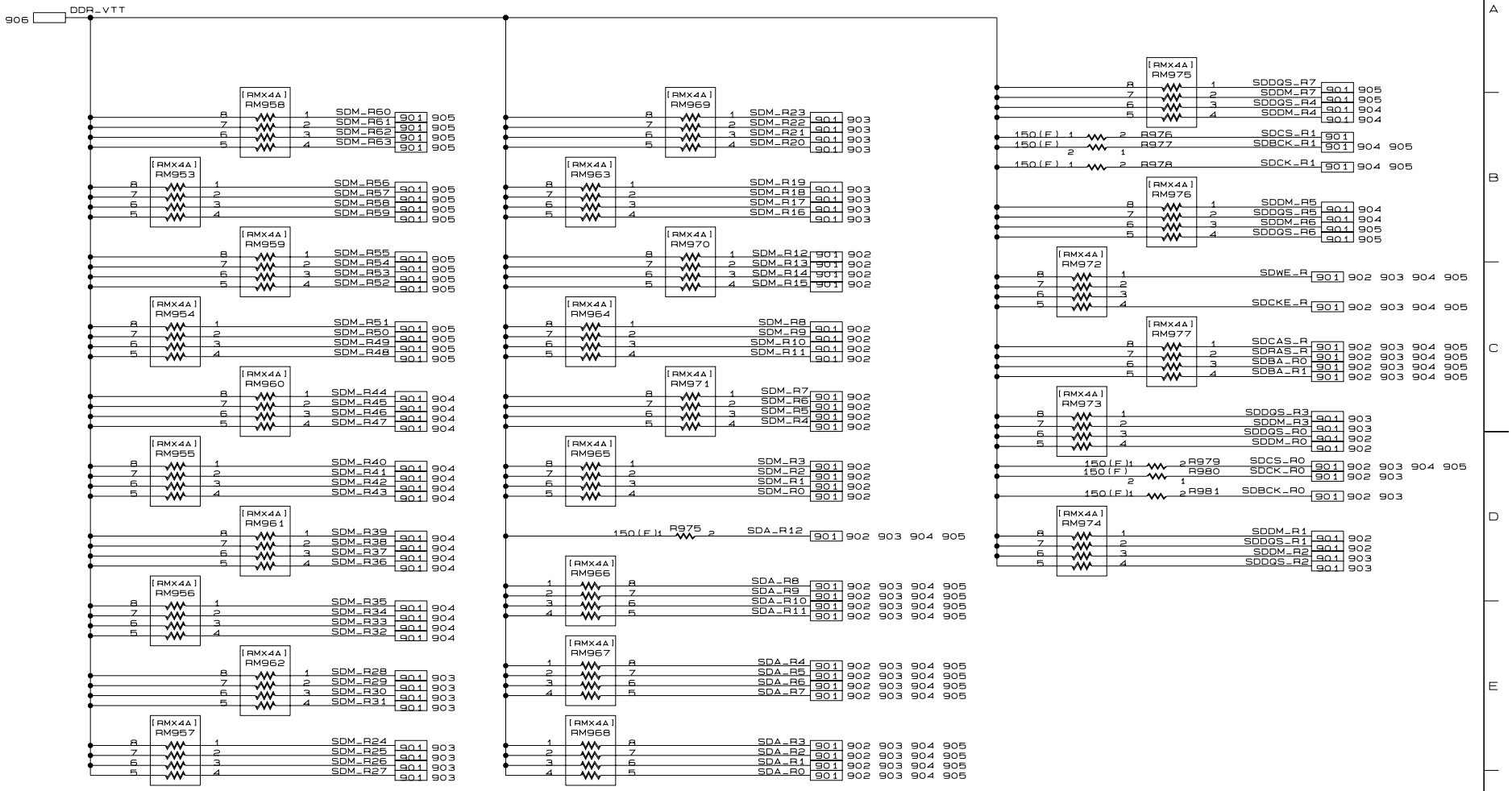
37HLX95
SEINE FOR FPD
DDR 4

SH. NO.
905



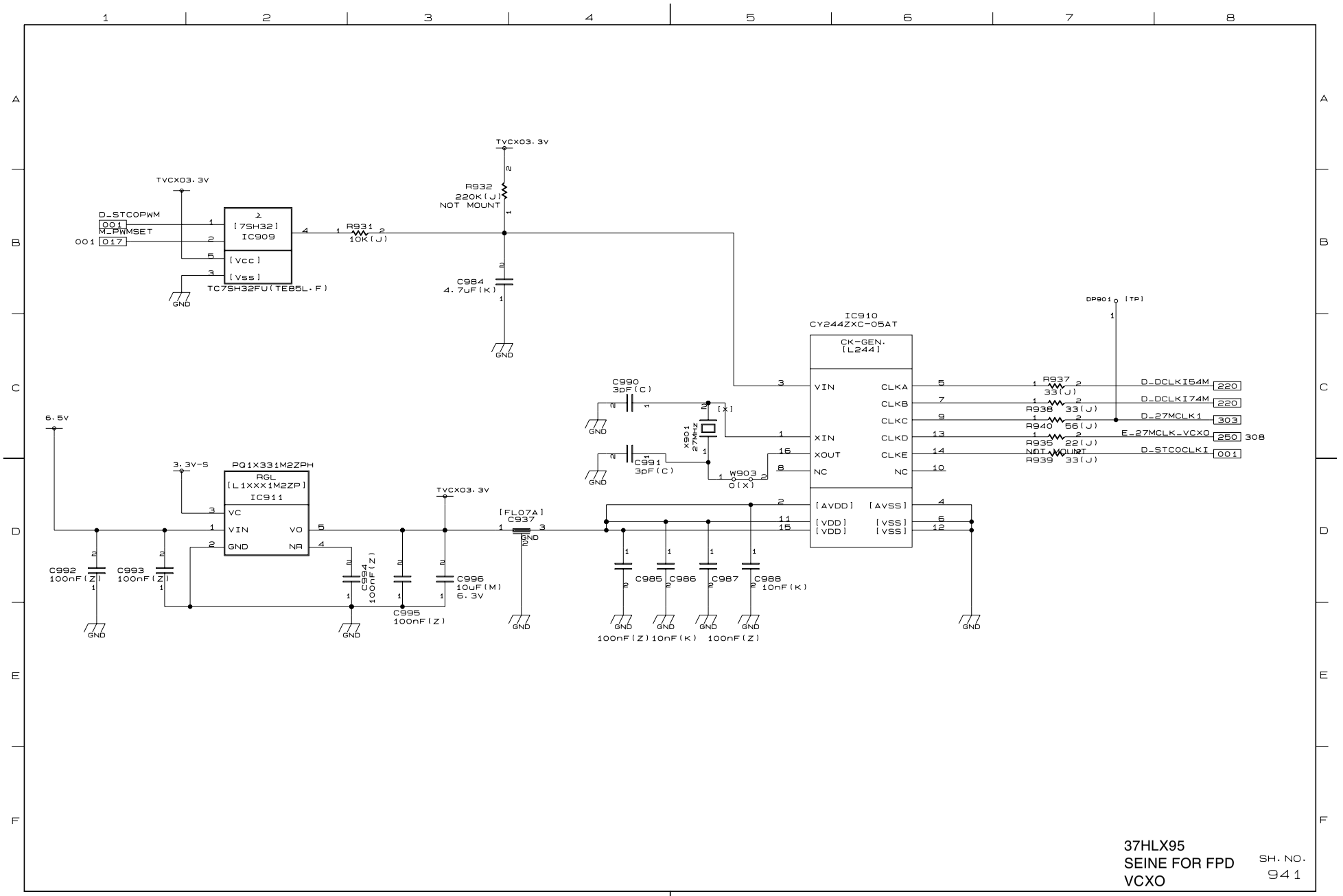
37HLX95
SEINE FOR FPD
DDR POWER

SH. NO.
906



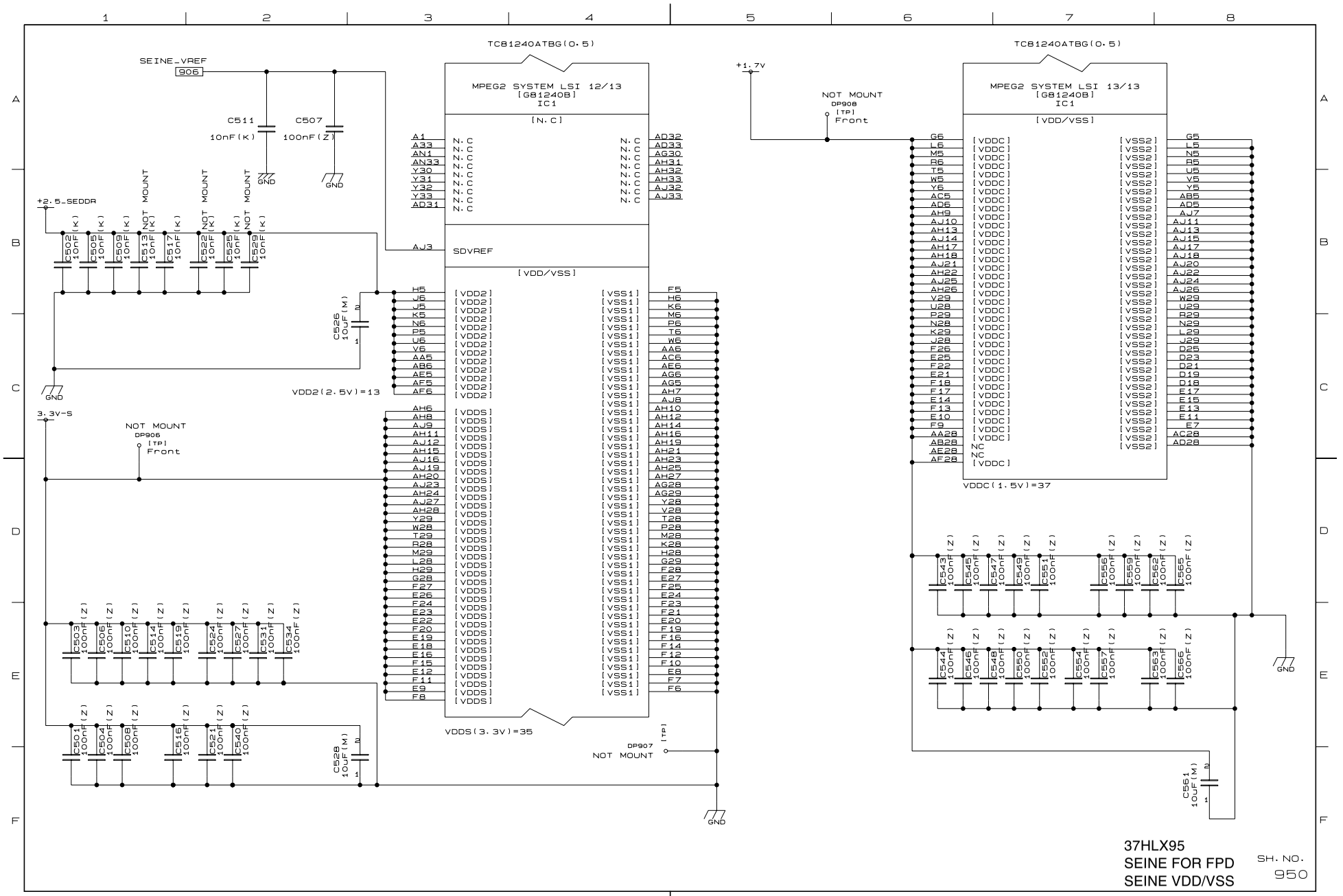
37HLX95
SEINE FOR FPD
TERMINATOR

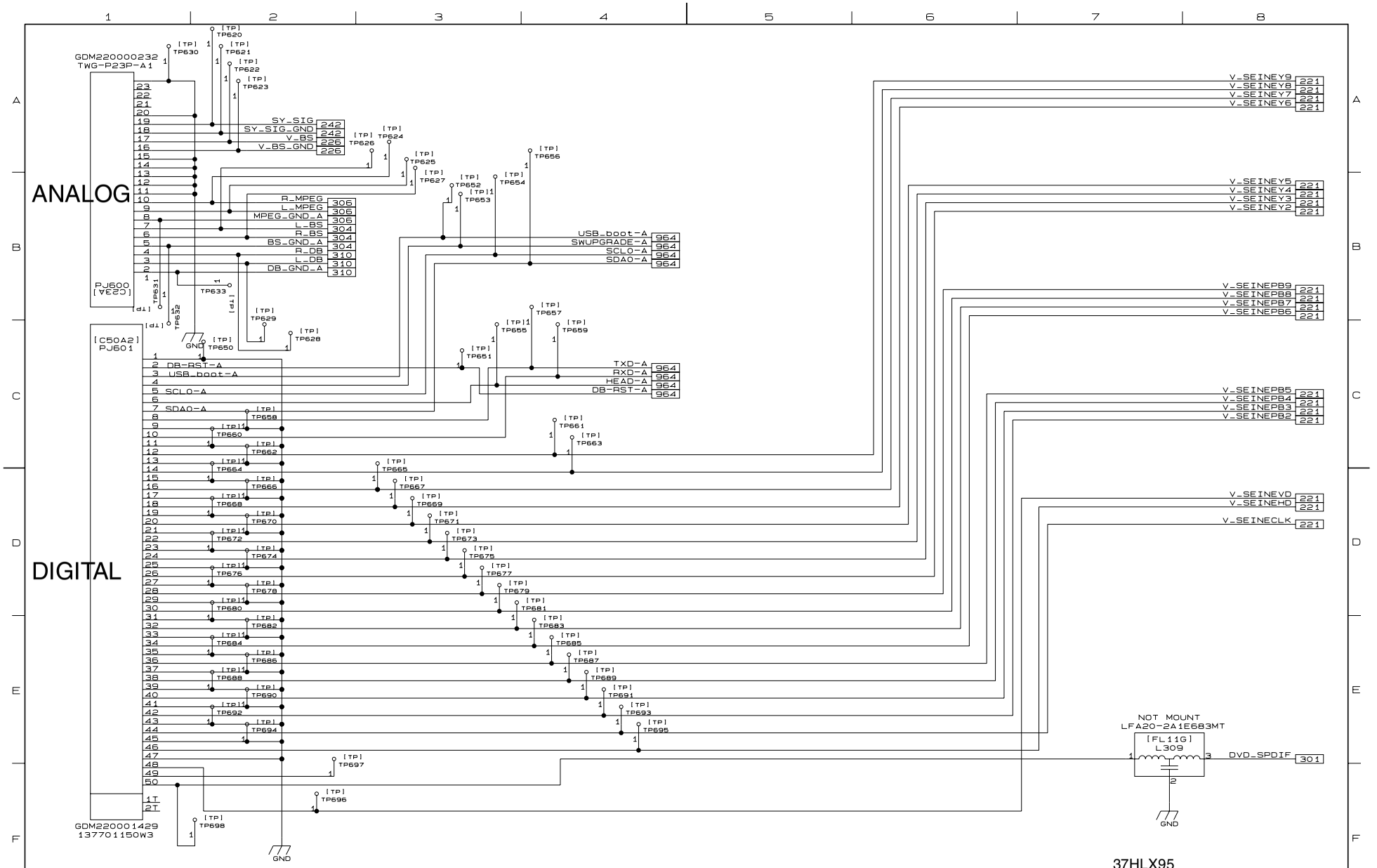
SH. NO.
907

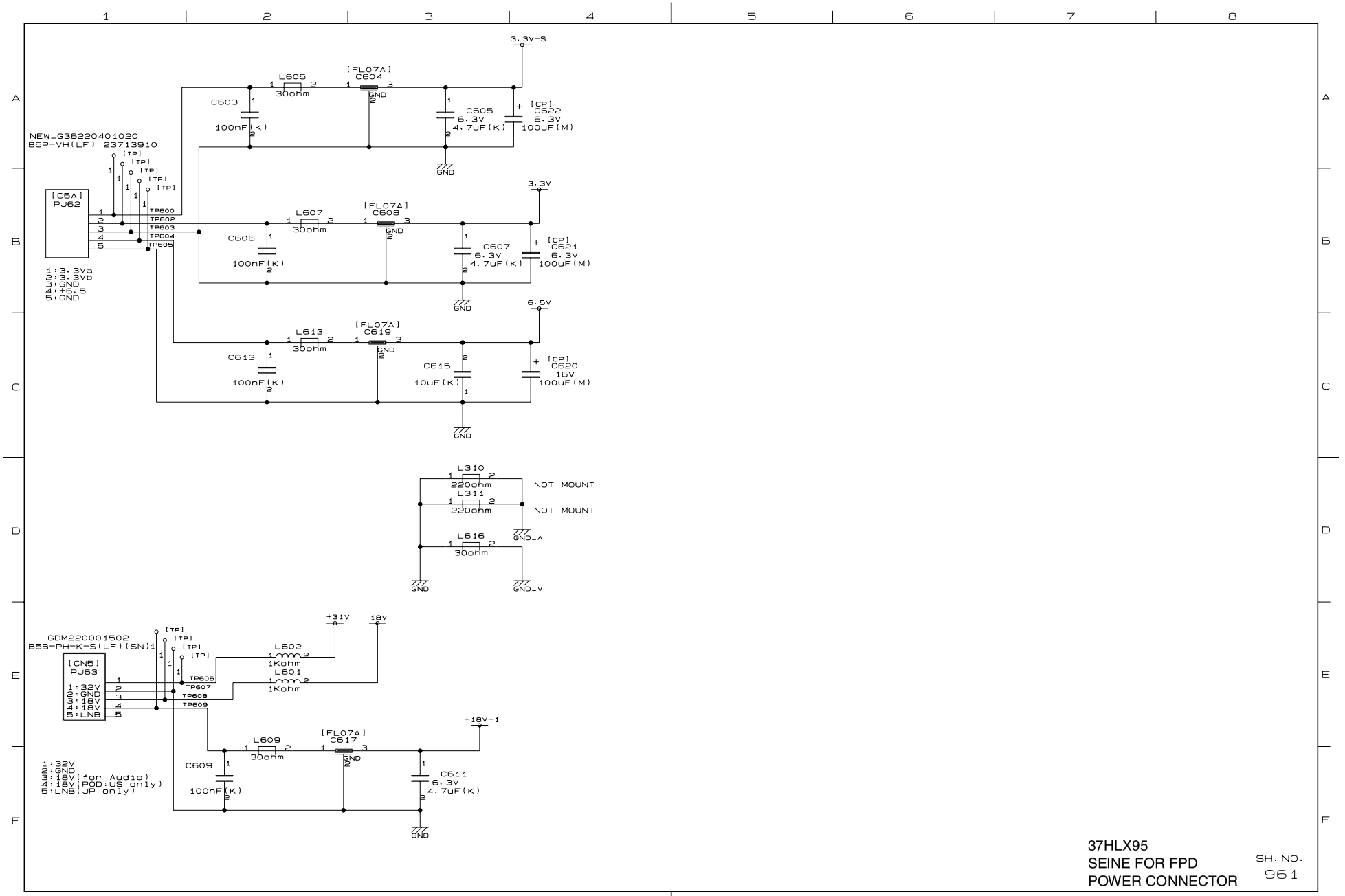


37HLX95
SEINE FOR FPD
VCXO

SH. NO.
941

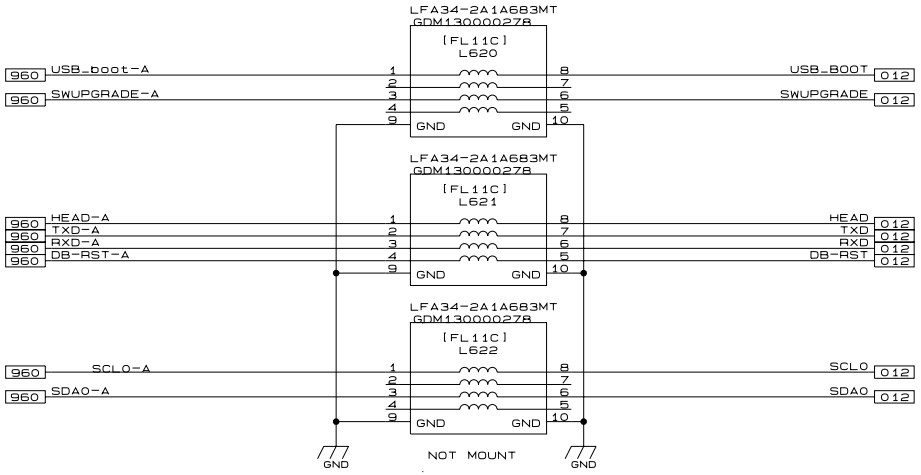

TC81240ATBG(0.5)
MPEG2 SYSTEM LSI 12/13
[G81240B]
IC1
[N.C]
SDVREF
[VDD/VSS]
VDD2(2.5V)=13
VDDS(3.3V)=35
TC81240ATBG(0.5)
MPEG2 SYSTEM LSI 13/13
[G81240B]
IC1
[VDD/VSS]
VDDC(1.5V)=37
SEINE_VREF
906
C511
10nF(K)
C507
100nF(Z)
+2.5_SEDDR
3.3V-S
NOT MOUNT
DP906
[TP]
Front
+1.7V
NOT MOUNT
DP908
[TP]
Front
DP907
[TP]
NOT MOUNT
GND
37HLX95
SEINE FOR FPD
SEINE VDD/VSS
SH. NO.
950


ANALOG
DIGITAL
GDM220000232
TWG-P23P-A1
PJ600
[C23A]
[C50A2]
PJ601
GDM220001429
137701150W3
SY_SIG
SY_SIG_GND
V_BS
V_BS_GND
R_MPEG
L_MPEG
MPEG_GND_A
L_BS
R_BS
BS_GND_A
R_DB
L_DB
DB_GND_A
USB_boot-A
SWUPGRADE-A
SCLO-A
SDAO-A
TXD-A
RXD-A
HEAD-A
DB-RST-A
V_SEINEY9
V_SEINEY8
V_SEINEY7
V_SEINEY6
V_SEINEY5
V_SEINEY4
V_SEINEY3
V_SEINEY2
V_SEINEPB9
V_SEINEPB8
V_SEINEPB7
V_SEINEPB6
V_SEINEPB5
V_SEINEPB4
V_SEINEPB3
V_SEINEPB2
V_SEINEVD
V_SEINEHD
V_SEINECLK
DVD_SPDIF
NOT MOUNT
LFA20-2A1E683MT
[FL11G]
L309
GND
37HLX95
SEINE FOR FPD
SIGNAL CONNECTOR
SH. NO.
960



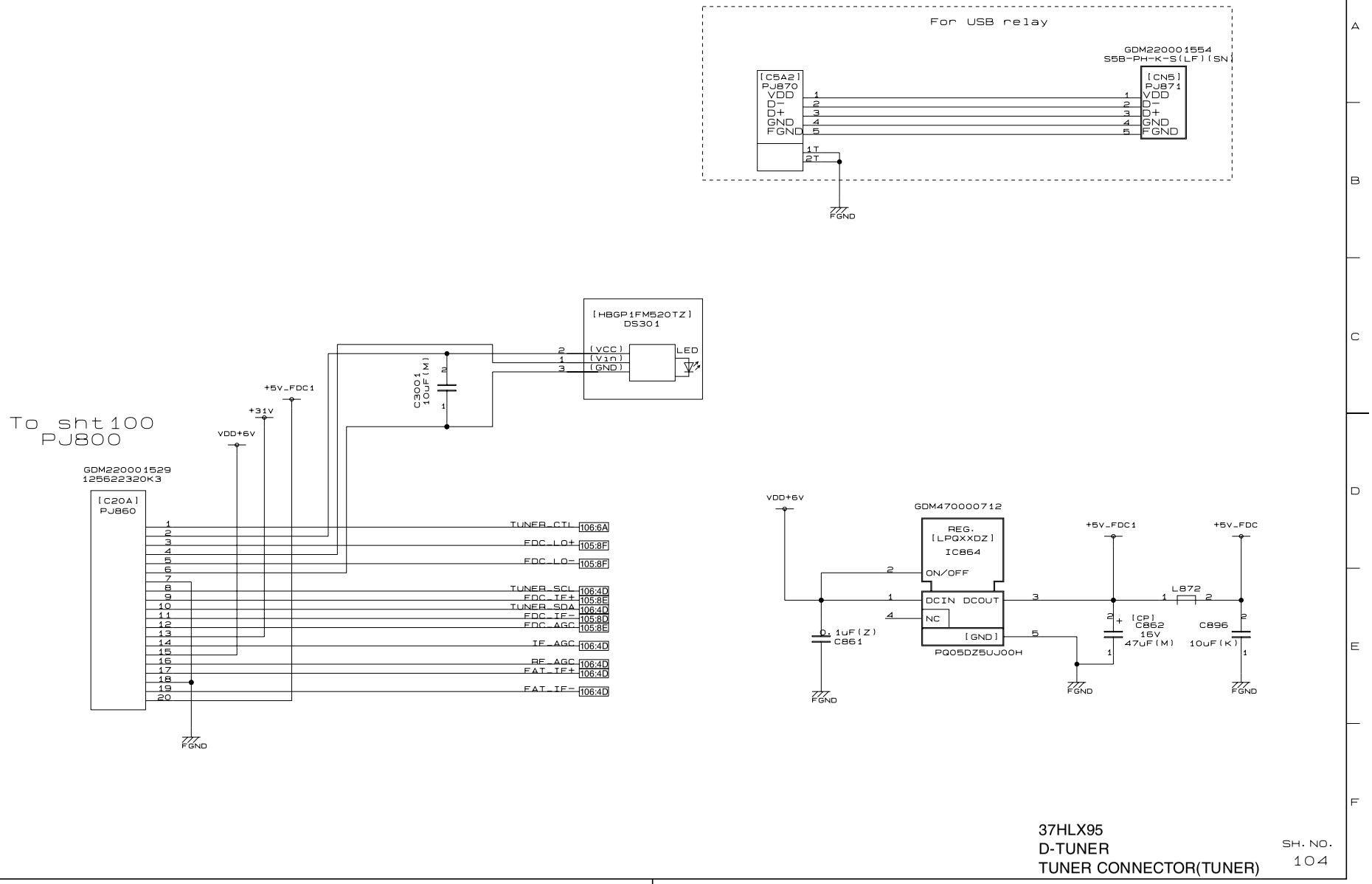
37HLX95
SEINE FOR FPD
POWER CONNECTOR

SH. NO.
961



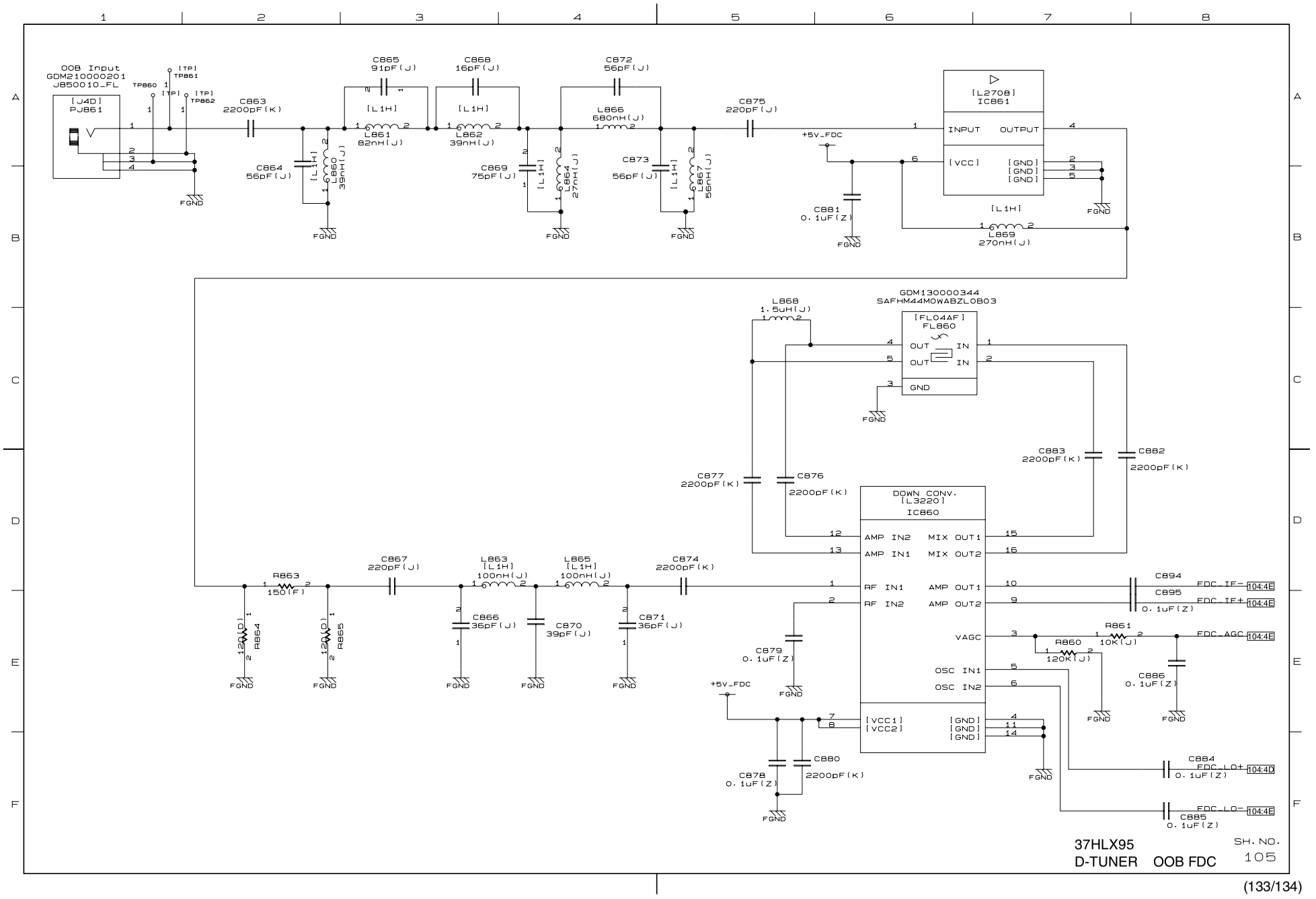
37HLX95
SEINE FOR FPD
Signal filter

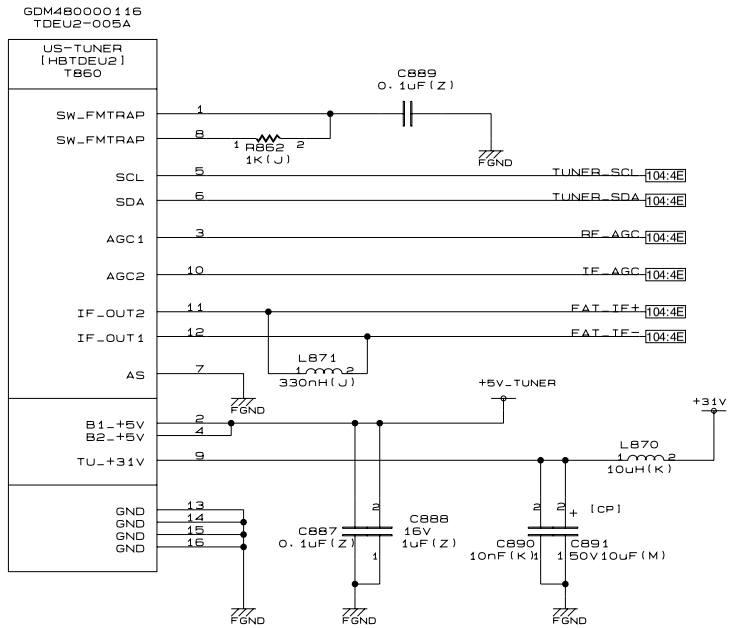
SH. NO.
964

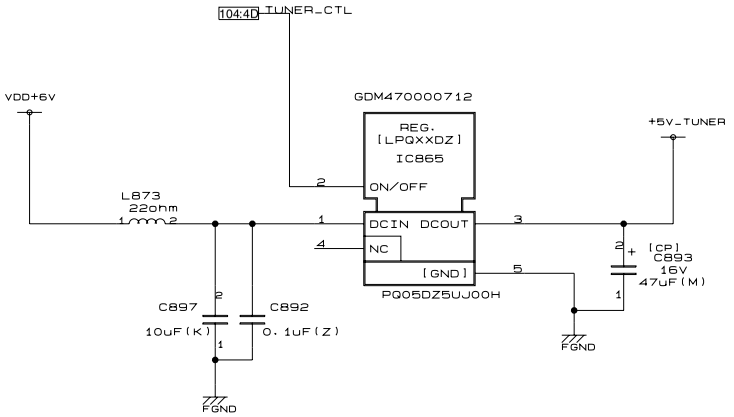


37HLX95
D-TUNER
TUNER CONNECTOR(TUNER)

SH. NO.
104


OOB Input
GDM210000201
J850010_FL
[J4D]
PJ861
TP860
TP861
TP862
C863
2200pF(K)
C855
91pF(J)
C868
16pF(J)
C872
56pF(J)
L861
82nH(J)
L862
39nH(J)
L866
680nH(J)
C875
220pF(J)
C864
56pF(J)
L860
39nH(J)
C869
75pF(J)
L864
27nH(J)
C873
56pF(J)
L867
56nH(J)
[L2708]
IC861
INPUT
OUTPUT
[VCC]
[GND]
+5V_FDC
C881
0.1uF(Z)
L869
270nH(J)
L868
1.5uH(J)
GDM130000344
SAFHM44M0WABZL0B03
[FL04AF]
FL860
OUT
IN
GND
C883
2200pF(K)
C882
2200pF(K)
C877
2200pF(K)
C876
2200pF(K)
DOWN CONV.
[L3220]
IC860
AMP IN2
AMP IN1
MIX OUT1
MIX OUT2
RF IN1
RF IN2
AMP OUT1
AMP OUT2
VAGC
OSC IN1
OSC IN2
[VCC1]
[VCC2]
R863
150(F)
C867
220pF(J)
L863
100nH(J)
L865
100nH(J)
C874
2200pF(K)
R864
120(D)
R865
120(D)
C866
36pF(J)
C870
39pF(J)
C871
36pF(J)
C879
0.1uF(Z)
C894
C895
0.1uF(Z)
FDC_IF-
FDC_IF+
R861
10K(J)
R860
120K(J)
FDC_AGC
C886
0.1uF(Z)
C884
0.1uF(Z)
FDC_LO+
C885
0.1uF(Z)
FDC_LO-
C878
0.1uF(Z)
C880
2200pF(K)
104:4E
104:4D
FGND
37HLX95
D-TUNER OOB FDC
SH. NO.
105





37HLX95
D-TUNER
FAT TUNER

SH. NO.
106

TOSHIBA CORPORATION
1-1, SHIBAURA 1-CHOME, MINATO-KU, TOKYO 105-8001, JAPAN